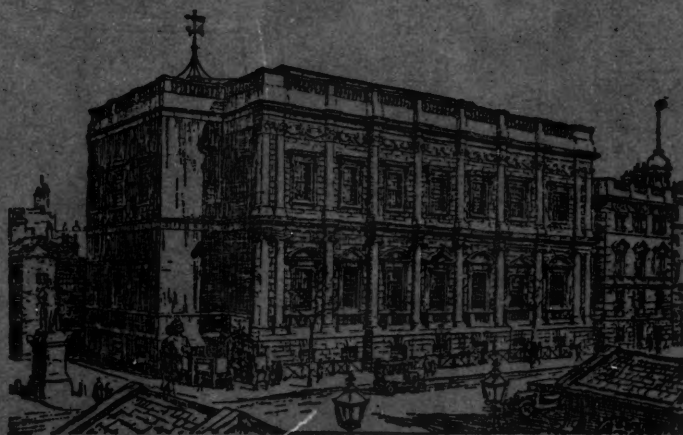


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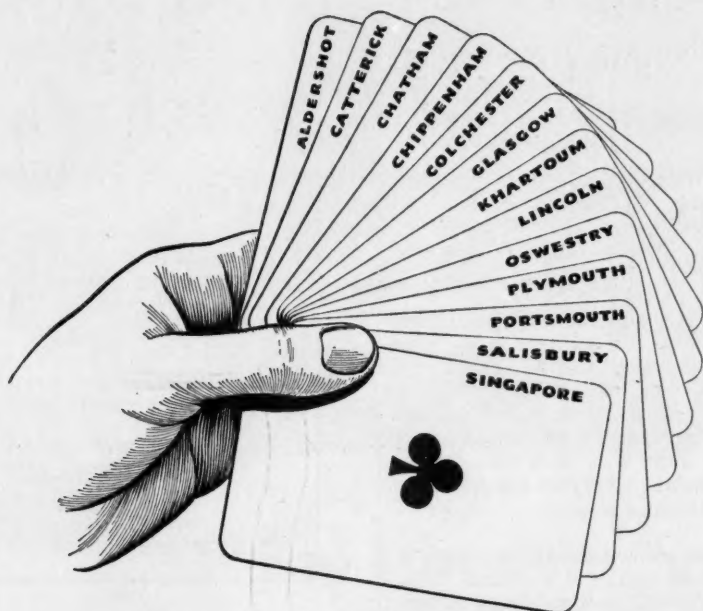
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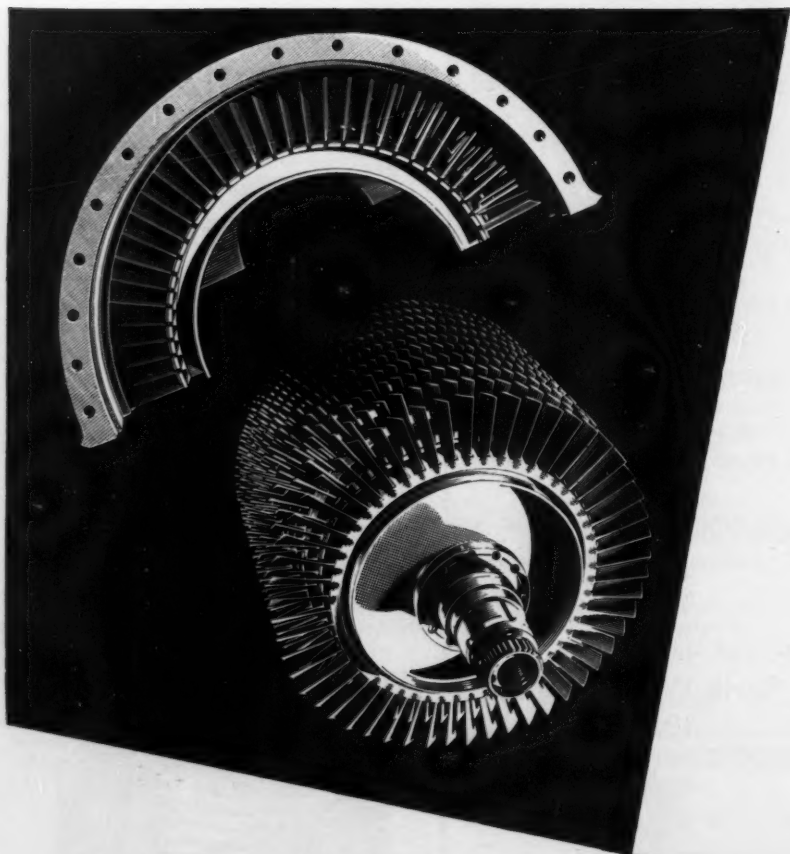
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May, 1954

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Admiral of the Fleet Sir Arthur J. Power, G.C.B., G.B.E., C.V.O., has been elected Chairman of the Council for 1954.

Vice-Chairman of the Council

General Sir Richard N. Gale, G.C.B., K.B.E., D.S.O., M.C., A.D.C., has been elected Vice-Chairman of the Council for 1954.

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Field-Marshal The Lord Wilson of Libya, G.C.B., G.B.E., D.S.O., has been re-elected, and General The Lord Ismay, P.C., G.C.B., C.H., D.S.O., D.L., elected, as Vice-Presidents of the Institution.

Elected Members

Admiral Sir Henry Moore, G.C.B., C.V.O., D.S.O., has been re-elected, and Major-General G. W. Lathbury, C.B., D.S.O., M.B.E., elected, as Members of the Council.

Ex Officio Member

Vice-Admiral Sir William G. Andrewes, K.B.E., C.B., D.S.O., has accepted the invitation of the Council to become an ex officio Member of the Council on taking up the appointment of President of the Royal Naval College, Greenwich.

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The Council hope that many more members will support the scheme for covenanted subscriptions, details of which have been circulated to all members.

This materially assists the Institution because it enables income tax at the full current rate to be reclaimed on each subscription. It is emphasized that a Deed of Covenant entails no additional expense to the member, but it goes a long way towards meeting the increased essential costs of administration. The Council wish to thank the many members who have re-covenanted since the beginning of the year.

To date, there are 1,432 annual and 281 life covenanted members.

Any member who has not received his copy of the scheme or who requires new forms is requested to communicate with the Secretary.

LIAISON OFFICERS

The following alterations to the list of Liaison Officers, as published in February, have taken place:—

<i>Establishment or Command</i>	<i>Name</i>
Amphibious Warfare Headquarters	Lieut.-Colonel B. N. L. Ditmas, M.B.E., R.A.

ROYAL NAVY

Home Fleet	...	...	Commander A. D. Bulman, R.N.
Flag Officer Air (Home)	...	...	Lieut.-Commander M. L. Y. Ainsworth, R.N.
H.M.S. <i>Excellent</i>	...	...	Lieutenant J. R. Grindle, R.N.
R.N. Barracks, Devonport	...	...	Lieut.-Commander T. Emanuel, R.N.
R.N. College, Greenwich	Major W. S. B. Gunn, M.C., R.A.

ARMY

Far East Land Forces	Major H. R. Bestley.
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ROYAL AIR FORCE

Far East Air Force	Wing Commander C. N. Foxley-Norris, D.S.O.
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MUSEUM

ADDITIONS

An outstanding addition to the Museum is the Ice Axe used by Brigadier Sir John Hunt, C.B.E., D.S.O., during the successful expedition which he led to Mount Everest in May, 1953. This Axe was also used by Charles Evans when he and Tom Bourdillon reached the south summit on 26th May. The real owner was Sir John Hunt's wife, from whom he borrowed it for the expedition (9645).

An officer's full-dress uniform, 25th Indian Cavalry (Frontier Force), 1908 (9637). Given by Major J. Nethersole.

A group of three medals awarded to First Class Private William Skidmore, Cape Mounted Riflemen, comprising:—(1) Cape General Service; (2) Queen's South Africa; (3) Long Service and Good Conduct; also a discharge certificate (9639). Given by Lieut.-Colonel H. W. M. Bamford.

A sword-knot worn by Major-General Sir Henry Havelock, K.C.B., 1857 (9640). Given by Miss E. Greenhow.

Two pairs of epaulettes, St. Helena Regiment, 1845, and a pair of epaulettes, 26th Foot, 1834 (9641-2). Given by Brigadier E. Foster Hall, M.C.

A copy of the New Testament with an introduction by Field-Marshal Earl Roberts, V.C., which was issued to other ranks who transferred from the Ulster Volunteers to the Regular Forces in 1914 (9643). Given by Mrs. L. E. Leslie Smith.

A Kinghal (type of dagger) from the Middle East or Balkans. Not yet identified (9644). Given by Brigadier-General C. A. L. Graham, D.S.O., O.B.E., D.L.

JOURNAL

Offers of suitable contributions to the JOURNAL are invited. Confidential matter cannot be used, but there is ample scope for professional articles which contain useful lessons of the recent war; also contributions of a general Service character, such as strategic principles, command and leadership, morale, staff work, and naval, military, and air force history, customs, and traditions.

The Editor is authorized to receive articles from serving officers, and, if found suitable, to seek permission for their publication from the appropriate Service Department.

Army officers are reminded that such articles must be accompanied by the written approval of the author's commanding officer.

CHANGES OF ADDRESS

Members are particularly requested to notify any change of address which will affect the dispatch of the JOURNAL.

Naval officers are strongly advised to keep the Institution informed of their address, as JOURNALS sent to them via C.W. Branch of the Admiralty are invariably greatly delayed.

As a serving officer is liable to frequent changes of station, it is better for such members to register either a permanent home or a bank address.

CANADIAN SERVICE INSTITUTES

The Honorary Member of the Council for Canada has kindly provided the following list of United Service and Military Institutes for the information of members of the R.U.S.I. who may be visiting Canada :—

United Services Officers' Club of

Charlottetown,
2, Havilland Street,
Charlottetown, P.E.I.

Royal Canadian Military Institute,
426, University Avenue,
Toronto, Ontario.

Hamilton and District Officers' Institute,
61, Robinson Street,
Hamilton, Ontario.

United Services Institute of Nova Scotia,
15, Belmont Road,
Halifax, N.S.

United Services Institute of Manitoba,
283, Portage Avenue,
Winnipeg, Manitoba.

United Services Institute of New Brunswick,
P.O. Box 1406,
Saint John, N.B.

United Services Institute of Regina,
c/o H.Q. Saskatchewan Area, Canadian
Army,
Regina, Saskatchewan.

Quebec Military Institute,
c/o H.Q. Eastern Quebec Area,
Canadian Army,
Quebec City, P.Q.

United Services Institute of Saskatoon,
201-202, Pinder Building,
Saskatoon, Saskatchewan.

Montreal United Services Institute,
3530, Atwater Avenue,
Montreal, P.Q.

Prince Albert United Services Institute,
Prince Albert, Saskatchewan.

United Services Institute of Ottawa,
P.O. Box 1134,
Ottawa, Ontario.

Moose Jaw Military Institute,
The Armouries,
Moose Jaw, Saskatchewan.

Kingston United Services Institute,
c/o H.Q. Eastern Ontario Area, Canadian
Army,
Kingston, Ontario.

Alberta United Services Institute,
501, Grain Exchange Building,
Calgary, Alberta.

Peterborough United Services Institute,
Peterborough, Ontario.

Edmonton United Services Institute,
P.O. Box 654,
Edmonton, Alberta.

London United Services Institute,
468, Richmond Street,
London, Ontario.

United Services Institute of Vancouver,
916, Hall Building,
Vancouver, British Columbia.

Lake of the Woods United Services
Institute,
Kenora, Ontario.

United Services Institute of Chilliwack,
Chilliwack, British Columbia.

CHANGES OF ADDRESS

Members are particularly requested to notify any change of address which will affect the JOURNAL of the Institution.



THE COUNCIL ROOM
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MALAYA

By BRIGADIER K. R. BRAZIER-CREAGH, C.B.E., D.S.O.

On Wednesday, 13th January, 1954, at 3 p.m.

AIR CHIEF MARSHAL SIR JAMES ROBB, G.C.B., K.B.E., D.S.O., D.F.C., A.F.C., in the Chair

THE CHAIRMAN: It is my pleasant duty this afternoon to introduce our lecturer, Brigadier K. R. Brazier-Creagh, who is Chief of Staff, Malaya. There can be few people better qualified to tell us what we have gone through out there; what is happening now; what the future holds; and the fundamental importance of our successful finish of this campaign.

LECTURE

IT is possible that the type of war which is being fought in Malaya may be the pattern for cold war operations which will have to be fought in various parts of the world in the future until international Communism is defeated for good. This war is only partially a shooting war and an equally great, or greater, battle is being fought for the hearts and minds of the people of the country, to which the Services, and in particular the Army, are making a big contribution towards the defeat of Communism in many ways.

THE TYPE OF WAR

WHY AND HOW DID THE EMERGENCY START?

Communism in Malaya is not an indigenous movement. It is an infection of a small section of the Chinese community with the Communist virus through the agency of the Communist party in China. The Malayan Communist Party (M.C.P.) was formed in 1930 and concentrated its resources on penetration and control in the labour field. It used genuine labour grievances for its own ends and fomented widespread strikes in 1936-37.

When Japan entered the war in 1941, the British authorities accepted the offer by the M.C.P. of its services, and guerrilla forces were formed to operate in the rear of the Japanese armies. They had hardly become effective before the fall of Singapore, but later their guerrilla activities were fostered and organized by Force 136. Considerable quantities of arms were delivered to the M.C.P. after the fall of Malaya and they acquired others from stocks abandoned when the Imperial forces were evacuated.

The war ended leaving the Communists possessed of an aura of respectability, a well-organized guerrilla force, and considerable stocks of arms and ammunition. The Malayan People's Anti-Japanese Army (M.P.A.J.A.), as they were called,

emerged from the jungle, nominally accepted disbandment, and laid down as few of their arms as they could get away with, but they had already made plans for the future.

The M.C.P. then proceeded to take the initial steps in the cold war. It was no local effort, but part of a wider South-East Asia plan aimed at spreading Communism throughout the Philippines, Indo-China, Siam, Burma, Indonesia, and Malaya, and driving the Western Powers from their economically rich areas in these territories. In Malaya, a campaign of agitation was begun, followed later by strikes and disturbances. Then, in 1947, at an International Youth Conference in Calcutta, the various Communist parties in South-East Asia were given orders to turn from agitation to campaigns of open violence. In 1948, therefore, the M.C.P. opened their campaign at the same time as similar insurrections took place in Burma and Indo-China. It was against such a contingency that the large, undisclosed stocks of arms and ammunition left over from the war had been preserved. The experienced guerrilla fighters took to the jungle once more, and on 18th June, 1948, the Government of the Federation of Malaya declared a state of emergency. A month later the Communist Party was outlawed as an unlawful society.

THE ENEMY

His Aim

The campaign of the M.C.P. was planned in three phases. The first was a phase of pure guerrilla warfare, designed to stretch and weaken the Government while the party was engaged in recruiting and building up the strength of their forces, now termed the Malayan Races Liberation Army (M.R.L.A.). The second phase was to be intensified attacks on communications and the occupation of small areas. These small areas were to be used as temporary bases for the launching of the third phase, which entailed the assumption of administrative control over the abandoned areas, the establishment of permanent bases, the conversion of the guerrillas into a Regular army, and the final overthrow of the government by armed force. In Malaya, we have succeeded in halting the programme in the first phase and are now in the process of destroying the guerrilla army.

His Organization

The M.C.P. is a joint political/military organization. It is controlled and directed by the Central Politburo, the head of which is the Secretary General, Chan Peng. Below the Politburo is a series of regional bureaux, State and District committees covering the country. The District committees, which control the branches, and the Min Yuen movement are the main functional level of the organization.

The committee members in the M.C.P. are all Communists of many years standing and the qualifications for promotion to these ranks are strict and seldom varied. It takes a Communist many years of faithful service to the party to gain promotion, and they will rarely promote to a vacancy caused by a casualty unless a suitably qualified candidate is available. They are having little success in recruiting men of intellect and character who will make leaders and this, coupled with their rigid insistence on qualification for rank, makes their command structure vulnerable. It is extremely difficult for them to replace leaders who become casualties and, therefore, any successes which we have in eliminating ranking members of the organization are of the greatest importance.

HIS ARMED FORCES

The armed forces of the M.C.P. are nominally divided into the M.R.L.A. and armed units of the Min Yuen. The M.R.L.A. is a full time military organization composed almost entirely of Chinese. Some ten per cent. of Malays or Indians form the non-Chinese element. It used to follow a normal military organization, but the success of security force action has compelled the M.R.L.A. to break down from companies into a series of independent platoons. The Min Yuen (or people's movement) is the organization by the M.C.P. of the civil population to carry out ancillary duties on behalf of the M.R.L.A. They collect intelligence, supplies, and recruits, act as couriers, and disseminate propaganda. They also collect funds, either voluntarily or by robbery and extortion. Their eventual object is so to dominate the population in their particular area that they carry out the instructions of the M.C.P.

The general picture is, therefore, of an organized and uniformed guerrilla force living in temporary camps in the jungle, from which it emerges to perpetrate acts of terrorism. It was initially entirely supplied by the local population through the un-uniformed Min Yuen organization. The supply of arms and ammunition is derived from stocks concealed after the war, replenished by captures from the security forces. The un-uniformed, clandestine Min Yuen organization, in addition to its supply duties, carries out the covert activities of the M.C.P. among the population.

It is the necessity for contact with the population for supplies, recruiting, and propaganda, which makes the terrorists vulnerable to military action. As a result of security force successes, a new trend is now apparent; bases are appearing deep in the jungle supported by cultivated clearings spread over large areas. This trend indicates an attempt by the terrorists to provide themselves with more secure sources of food.

THE PROBLEMS BEFORE THE GOVERNMENT

THE RESTORATION OF LAW AND ORDER

The general effect of these tactics, as always at the start of a cold war, was a loss of confidence in the ability of the Government to maintain law and order and to protect the people. As a result, many of the people either voluntarily, or under threat, supported the terrorists. Therefore, the first step which had to be taken was to restore law and order.

By the declaration of a state of emergency, extraordinary powers were assumed by the Government and the hand of the administration was strengthened. It is essential, however, to handle these powers with great care, as the restrictions imposed will be exploited by the opposition and may aggravate the grievances of the people against the Governing Power. As the situation improves, relaxation of restrictions can be allowed, thus confirming the good intentions of the Government.

In order to deal with the terrorists, the military forces were called out in aid of the civil power and, as long as the war remains cold, the military forces remain in support of the civil power. The way in which the 'shooting war' is conducted is described later.

RESETTLEMENT

The next major problem which faced the Government was how to isolate the rural population from the terrorists, both to protect them and because it was only in

this way that supplies could be cut off from the enemy and their covert activity could be stopped.

All over the rural areas in Malaya, the population lives in scattered villages and settlements, many on the jungle fringe and with poor communications with the bigger centres. It was from these places, particularly where the Chinese population was predominant, that the terrorists drew their supplies. Unless the population could be concentrated to a greater extent, they could not be isolated from the terrorists. The resettlement policy was therefore initiated, under which thousands of the population were moved into new villages, which were wired in. They were given police protection and encouraged to provide their own protection by means of the Home Guard. At the same time, the resettled villagers received many of the benefits of good administration, such as piped water supply, electric light, schools, and medical centres, which had never reached them in their scattered dwellings. Similar protection was given to the labour lines of estates and mines.

MEETING THE PEOPLE'S ASPIRATIONS

These, then, were what might be called the negative measures to deal with the emergency, although resettlement had positive aspects to it. Equally important and simultaneous positive measures were taken in what General Templer has described as "the battle for the hearts and minds of the people."

First, steps were taken to meet the people's aspirations. The great desire for self determination which has swept across Asia did not leave Malaya untouched. The problem of leading the people towards the goal of self government is being tackled with sympathy and understanding. The universal problems of labour relations and the development of trades unions have progressed further in Malaya than anywhere else in South-East Asia. In these and many other ways, the Government, by wise counsel and intelligent action, is meeting the justifiable aspirations of an awakening people.

MOBILIZATION OF ALL THE POWERS OF GOOD TO SUPPORT THE GOVERNMENT

The next step was to mobilize all the powers of good in support of the Government. In Malaya, like every country in the East, a tremendous leeway remains to be made up in matters of education, housing, and health, which was widened by the war and the Japanese occupation. In fact, the general standard of living in Malaya compares favourably with that of other countries in South-East Asia. Nevertheless, poor housing, insanitary conditions, a starvation level of wages, and illiteracy still provide fertile soil for Communism. All these have been and are being attacked with the same energy as the terrorists in the jungle; the only limits to action being the availability of money and skilled manpower.

PUBLICIZING THE MERITS AND AIMS OF THE GOVERNMENT

Finally, it was necessary to drive into the minds of the whole population the merits of the existing Government, its achievements and its aims. The Japanese occupation left a legacy of lack of confidence in Government pronouncements and an antipathy towards the police. The ignorance of Government aims and achievements was great and the problems in overcoming it considerable, due to the high degree of illiteracy and to the fact that broadcasting does not reach down to the lowest levels of the population in all areas. Much of the value of the other positive steps being taken is lost, unless the population realizes the Government's share in bringing them

about and how they fit in with the Government's ultimate aims. It was with the intention of solving this problem that control of all the agencies involved was centralized under the Director General of Information Services appointed by General Templer.

HOW THE WAR IS BEING FOUGHT

THE FORCES AT THE DISPOSAL OF THE GOVERNMENT

Offensive action against the terrorists is based on the legal powers which enable the Government to impose a state of emergency and the emergency regulations granting special powers to the civil administration, the police, and the armed forces. It is a feature of this type of warfare that all operations are closely integrated affairs with all or many of the forces at the disposal of the Government—Police, Home Guard, Civil Administration, Navy, Army, and Air Force—taking part.

THE HOME GUARD

Every Chinese village or Malay kampong in Malaya, which could be subjected to terrorist activity, now has a Home Guard. Their task is the protection of their homes and families from the demands, backed up by armed force, of the terrorists. The Home Guard brings the people into the battle and does much to bring home to the population their responsibilities to the Government.

THE POLICE

The police in Malaya are now organized into three main elements, the Regular Police, the Special Constabulary, and the Police Field Force.

The Regular Police man the police stations and police posts throughout the country. Their task is the maintenance of law and order as the servants of the public. Much has been done to gain public confidence through the development of "Operation Service," whereby the Regular Police, where possible, carry out their duties unarmed, devote their main attention to the normal functional police work, and do all in their power to develop a feeling of friendship and mutual confidence between themselves and the public.

The Special Constabulary is armed and can be raised whenever a state of emergency is declared; numbers being directly related to the particular problem. They are now organized into approximately 800 area security units. These units, each about 25 strong, are located in strict geographical areas of population, industry, and planting and, both by active patrolling up to the jungle fringes and by static guards, give security to their areas. They can deny ground to the terrorists and prevent contact between them and the people, the food suppliers, and the money collectors.

The Police Field Force is an armed force, which perhaps can be described as a gendarmerie. They have up to now played a part equivalent to the Army and have filled the framework of security. They are now, however, being used to man a number of forts, which are established deep in the jungle to deny those areas to the enemy and to win over the aboriginal population who have been subjugated by the terrorists.

THE INTELLIGENCE SERVICE

Good intelligence and information are of outstanding importance in enabling the security forces to find and destroy the terrorist, particularly the leaders whose loss disrupts the organization and saps the ideological driving force behind the rebellion.

The initial effect of the terrorists tactics was, as has been explained, to produce a loss of confidence in the ability of the Government to maintain law and order and

to protect the people. Consequently, information as to terrorist movements dried up. As the security forces were expanded, developed, and trained, confidence began to return and with it the flow of information swelled.

Much of the information necessary for the Government's conduct of the cold war, both political and military, must be obtained from police sources. The establishment of a Special Branch requires many years of careful and patient preparation. The cold war in Malaya, coming so soon after enemy occupation of the country, found an inadequate Special Branch which is only now beginning to play its full part.

The main source of tactical intelligence is the Special Branch. To allow the Special Branch to concentrate on its proper role of penetration of the enemy, a system of military intelligence officers (M.I.Os.), who work under State or Circle Special Branches, has been set up. These M.I.Os. are responsible, within the Special Branch, for collating and assessing all tactical information which can be passed on for use by the military and the operational police. These M.I.Os. are more highly trained than normal battalion or brigade intelligence officers and, because of their close connection with Special Branch, enjoy the confidence both of the Police and the Services; they are thus of particular assistance in promoting co-operation between the two. This co-operation is vital if the best use is to be made of intelligence.

THE INFORMATION SERVICES

Psychological warfare has an important part to play both against terrorists whose morale is cracked or cracking, and in informing and influencing the public about Government policy and intentions.

The two main mediums of approach used in Malaya are the eye (leaflets and posters) and the ear (broadcasting and air loudspeakers). The problem in Malaya is very much complicated by the variety of written and spoken languages and dialects. Leaflets, in particular the tactical leaflet, which can be hurriedly printed as a result of a surrender or kill, are of tremendous value. They are persistent even in tropical rain and can be distributed widely by air or ground forces. The innovation of the voice aircraft, with its advantages of speed, personality, and ability to cover large areas, has also proved of great value.

OTHER GOVERNMENT SERVICES

Other services which can help to give the lie to Communism in the cold war are education and health. Much can be done to influence the people by adult education, the running of civics and rehabilitation courses, and by improving the health and sanitation in rural areas.

Public utilities, railways, telephones, roads, light, and water must be maintained to retain confidence in the administration and to give the essential mobility to the security forces. The Government should be prepared to assist the St. John and Red Cross organizations, who in Malaya have done so much to gain the confidence of the people in the resettlement plan. The Boy Scouts and Girl Guides movements, which can be such an important influence in the moral education of young people, should also be encouraged.

THE ARMED FORCES

Lastly, in aid of the civil power we have the armed forces—the infantry battalions, cavalry regiments, S.A.S. Regiment, and artillery, supported by an air force of Lincoln bombers, ground attack and transport aircraft, and helicopters. Also, in

coastal areas, elements of the Navy assist in bombardment, river transport, and patrol to prevent supplies reaching the terrorists from external sources.

THE CHAIN OF COMMAND

The chain of command established in Malaya to deal with this cold war is in some respects peculiar to the country and the nature of the constitution, but no doubt the system could be adapted to fit other countries and circumstances. Against the emergency chain of command, the normal instruments of Government must still continue, such as the Executive Council and the Legislative Council. There is insufficient time to deal with the normal system of Government and only the special arrangements made to fight the cold war will be considered.

At the head is the High Commissioner, who is also Director of Operations. He sits as Chairman of the Director of Operations' Committee consisting of :—

Chairman.
Principal Staff Officer to the Director of Operations.
General Officer Commanding.
Commissioner of Police.
Air Officer Commanding.
Flag Officer Malaya Area.
Director of Intelligence.
Secretary for Defence.
Chief Secretary to the Government.
Secretary to the Committee.

This Committee deals with all the day to day problems of the emergency and can order specific operations or action to be taken.

In each State there is a State War Executive Committee (S.W.E.C.), consisting basically of :—

Chairman	...	...	The Mentri Besar
Members...	...	...	The British Adviser
			The Chief Police Officer
			The Brigadier

The S.W.E.C. has under it a number of District War Executive Councils (D.W.E.C.), consisting basically of :—

The District Officer.
The Officer superintending Police Circle.
The Battalion Commander.

There are not sufficient battalions to allow of an allotment of one to each district and a company commander may well be a member of the D.W.E.C. So too, unfortunately, the civil districts and police circles do not always coincide and the officer commanding police district may sometimes be a member of the D.W.E.C. Nevertheless, whatever variations to the basic organization may be necessary, the Civil Government, Police, and Army are always present as the triumvirate who run the emergency. The D.W.E.C. is the spearhead of the cold war.

Lastly, there is a combined Army/Air Headquarters Malaya with a naval liaison officer. This headquarters runs the day to day administration of the Army and carries out the military aspects of the Director of Operations' policy.

It will be noted that at all levels the army officer is working with police and civil authorities and that he is supported by naval and air forces. Officers must know

the organization and functions of the Civil Government and must approach all problems with patience. An officer who sees everything from the purely military angle will be gravely handicapped. The military problem will often conflict with a political or civil one and unless the officer understands the whole pattern, he will feel frustrated and may well upset the smooth running of operations in his area. The army officer is, by virtue of his professional training, better qualified to plan and execute cold war operations than his fellow committee members. He must, therefore, be prepared to take the lead in his committee, produce ideas, and carry the burden of responsibility for operations, but he must do so with such tact and understanding that his ideas and decisions appear to stem from the committee rather than from himself.

THE PART PLAYED BY THE ARMY IN THE 'SHOOTING WAR'

THE FRAMEWORK

Generally speaking the Army is deployed in what is termed a framework, with troops based in or near populated areas with the object of:—

- (a) Supporting the Police in those areas and giving confidence to the people.
- (b) Cutting the connection between the Communists and the public on whom they rely for subscriptions, food, and recruits, and whom they wish to seduce by propaganda to their cause.

This framework strategy is not one of purely static defence. From their bases in the framework, troops are all the time carrying out offensive operations in the form of patrols and ambushes to watch for and destroy the terrorists. Where possible, local reserves are kept to take advantage of any 'hot' information which may be received, and a federal reserve is held centrally for large scale operations in any area.

LOCATING THE ENEMY

The Communist terrorists move in small parties, have no fixed lines of communication and, in the absence of a completely loyal population and until intelligence is fully developed, can avoid security force probes and disappear into the ideal guerrilla country provided by the terrain, or merge with the population. Troops on foot are the most usual method of search. Patrols move on information, search for and follow tracks, or make chance visual contacts. Air reconnaissance is proving invaluable in locating cultivation areas and sometimes camps, but information from the population or from surrendered enemy personnel is by far the most certain method of locating terrorists.

BRINGING THE ENEMY TO BATTLE

Once located, the most successful method of killing the terrorist is the ambush. His high standards of jungle craft make it difficult to close with him on the move, but, once his intentions are known, or his routes found, the silent ambush has proved very successful.

So far, we have not solved the problem of preventing the enemy from breaking off an action and disappearing, and in Malaya you can disappear in a very few yards. We have used parachutists, artillery, and air to cut off a line of withdrawal, but not entirely with success. We have also used small parties saturating an area who can be moved to cut off positions by wireless after another has made contact. The only method which has really shown results, however, is the dogged pursuit by the infantrymen over dreadful country, sometimes for many days on end.

It is not always realized that the infantryman on patrol in Malaya plods through the jungle, on an average, for hundreds of hours without seeing his enemy. When at last contact is made, it is more often than not of a fleeting nature, with only the chance of a snap shot from an awkward position before the enemy disappears once more into the 'green wall' and the patrol pursues its way. It is therefore hardly surprising that, before a kill is recorded, the time the average soldier has to patrol is measured in thousands of hours. Even the ambush on information, the most fruitful source of kills, requires infinite patience. The average time required to produce a kill is well over 100 hours; hours of sitting in the heat, or the dark, drenched with rain, or consumed by insects, without smoking or moving and at instant readiness.

FOOD CONTROL OPERATIONS

The most successful operations have been those launched against the terrorists' lines of food supply.

Food control operations are combined civil, police, and military operations, which require a high degree of co-operation both in planning and execution. The first stage is normally the setting up of a food control area, into and out of which food cannot be moved without escort. Then, a reduced rice ration is instituted and all surplus rice is collected by house to house search and purchase. Finally, all tinned foods are punctured at the time of purchase in the shops.

Once the stage is set, police move into villages and food-supplying areas, where they carry out identity checks and searches of the persons moving into and out of the area. Snap checks are set up on roads to search all vehicles. Military operations in the local haunts of the terrorists are intensified, with the object of discovering and clearing dumped food and keeping the enemy on the move to prevent them going to ground and living on reduced rations.

All that is required now is patience to sit back and wait for results. Perhaps as much as six weeks or two months will elapse before results are seen. Then, as his dumped and hidden resources run out, the terrorist must make contact with the population to obtain supplies, and the security forces are waiting for him. The weaker brethren become a target for psychological warfare, and surrenders and kills begin. From this moment on, results snowball; each surrender is a source of information and the public begins to talk.

THE INITIATIVE

In this type of warfare, the initiative tends to remain with the enemy. He aims to avoid contact with the security forces. He can select his time and place of attack and he has a wide choice of targets.

The security forces, on the other hand, have only one target—the elusive terrorist needle in the jungle haystack.

The initiative is being wrested from the terrorists by relentless hunting, by improved security, and by increased mobility. In the last, the advent of the helicopter has considerably strengthened our hand.

THE PART PLAYED BY THE ARMY IN THE "BATTLE FOR HEARTS AND MINDS"

In addition to fighting the 'shooting war,' the Army has its part to play in the other 'battle,' which is such a potent factor in the cold war and in which the Army in Malaya has already done much. As General Templer has said, the main battle in the cold war is winning the hearts and minds of the people.

First, the Army can help by example—the spirit of a good Army can be exploited to the full and displayed to the people. Everything a unit does is known to the local inhabitants and, if they are confident that the Army, as represented by this local unit, is really ‘on the ball,’ they will be more co-operative, more forthcoming with information, and more sure to harden themselves against the Communist way of life.

The troops are, as we all know, wonderfully kind to people, to children, to old people, and to any coloured person. They should be given the opportunity to express this national asset. In Malaya, we have made considerable progress by the affiliation of units to villages. As a matter of interest, in one area the following units each have their own village:—a squadron of cavalry; the forward ordnance depot, R.A.O.C.; the British military hospital; an R.A.S.C. company; the brigade signal section.

These units play a very full part in their villages. They sit on the village committees, run games, play basketball, give demonstrations, give outings to the local inhabitants, organize band concerts, help in levelling sports fields, and in fact try to identify themselves in the life of their affiliated communities. Assistance has been given in training the Home Guard. Private soldiers and junior lance corporals have taken an active part and much of this has to be done in the soldier's spare time. On the reciprocal side, the village boar was lent to the unit sow and has resulted in a happy and fruitful union.

British, Gurkha, African, and Fijian troops have, by their leadership, won much friendship from the peoples of Malaya. In the Labis area of Johore, over \$5,000 (£625) was collected by the local inhabitants by house to house subscriptions and presented to the Cameronians in cash and kind as a mark of their regard for this regiment. Much the same happened in South Selangor when the Suffolks left.

On the material side also, the Army can do a great deal. A good example is medical aid; nearly all the army doctors in Malaya give their spare time to running village surgeries or to looking after children's wards in hospitals. Successful surgery has won many a heart for all time and a considerable number of civilians have been lifted out of the jungle to hospital by helicopter. Many other examples could be given.

It must not be thought that in Malaya the State cannot and does not try to do all these things, but it cannot do everything at once, although the awakening people will demand everything at once and failure to do or to provide will be used as fuel for the Communist fire and fanned by their propaganda. The Army, with its resources, can help in solving some of the immediate problems and show that it is wholeheartedly behind the Government in its efforts to provide the improvements so much desired by the people. The soldier is not fighting Communism only when he has a rifle in his hands.

THE FUTURE

THE OBJECTIVES

There are two particular objectives which we intend to pursue with vigour in the coming months because, if we can achieve them, the end of the emergency will be in sight. One is to bend our efforts to killing off as many of the higher leaders as possible. It is not an easy task, because they are the most elusive and the best guarded of the terrorists, but we have had successes in this respect over the past eight months and, if we can maintain and, if possible, improve on this success, they will be losing leaders faster than they can replace them and the command structure will crumble. Once this happens, the rank and file will lose heart.

The second objective is to increase the surrender rate. It has not been possible to isolate any particular factor, or factors, which lead a terrorist to surrender. It would appear that it is normally the cumulative result of pressures, mental and physical, over a period caused by fear, privation, and a sense of hopelessness. These in their turn are produced by relentless hunting and harassing, food control measures, and psychological attack. All these are being stepped up and the techniques improved, in order to increase the pressure on the terrorist.

THE EXTENSION OF THE 'WHITE' AREA

The High Commissioner has recently declared part of the coastal area of Malacca to be a 'white' area. This means that, as the terrorists have been eliminated and the population is co-operating with the Government, a number of emergency controls which restrict the liberty of the individual are lifted from the area. The result is a great relaxation in life for the inhabitants. It was an experiment and, like all worthwhile experiments, it was attended with risk. So far the reaction appears to be most promising and the urge to get their own areas declared 'white' has been communicated to other districts. It is the High Commissioner's policy to extend the 'white' area as other areas become ready, and it is in this extension that the pattern of the closing phase of the war will emerge. Gradually more and more areas will be declared 'white,' until the terrorist is driven into the deepest jungle to starve or capitulate.

THE EFFECT OF THE ECONOMIC RECESSION

Due to the fall in the prices of tin and rubber, Malaya is going through a period of economic recession. Revenue has consequently contracted and there is less money to meet the many calls. The emergency is a heavy financial burden on Malaya and, while it is obviously difficult to reduce expenditure on police and armed forces in the present circumstances, it is equally important not to reduce expenditure on health, housing, and education—the armoury in the other battle.

Against the inescapable fact of reduced revenue, the Government is constantly faced with the hideous problem of balancing one side against the other. It is the High Commissioner's constant aim, as the situation improves, to reduce the expenditure on the negative measures, in order to transfer the savings to the positive side and so strengthen the forces in the battle for hearts and minds. Upon the speed with which this can be done will depend the length of the emergency.

SUMMARY

Success in the cold war must depend upon a combination of political, psychological, and military measures. The military effort is inextricably entangled with the political and psychological, but it would appear that the principles of military anti-guerrilla action can be stated as follows :—

(a) The guerrillas must be isolated from the civil population and every effort must be made to win public confidence and sympathy.

(b) An efficient intelligence service must be set up to ensure that military information arrives in the right hands in time.

(c) An efficient chain of command must be organized, based on police and civil boundaries, with military members giving the fullest co-operation and leadership.

(d) Mobility and flexibility must be retained with a reserve always in hand.

(e) A high standard of security is necessary to frustrate the guerrilla intelligence network.

(f) Offensive operations must be designed :

- (i) to cut guerrilla communications and lines of supply and to harass him with a view to weakening his offensive potential ;
- (ii) to destroy the leaders and command organization, thus removing the ideological driving force behind the revolution ; and
- (iii) to destroy the rank and file or secure their surrender.

A cold war cannot be won by shooting people or locking them up. Military action must restore law and order, but hand in hand with the military battle must proceed the search for, and the application of, an antidote to the cause.

DISCUSSION

BRIGADIER J. F. BOWERMAN : Can you tell me whether the Chinese are enlisting in any numbers in the new Federation Regiment. Men of the Malayan regiments are Malays, I know ; but this regiment has been organized, I believe, to enlist Chinese as well. Are they responding in any way ?

THE LECTURER : Yes. There are two parts of the Federation Army—the Malay Regiment, which is 100 per cent. Malays, and the Federation Regiment, which has been formed on a multi-racial basis.

We are getting in quite a reasonable number, but the Chinese do not recruit as readily as the Malays. Speaking generally, the Malay likes being a soldier, and the Chinaman does not, so you do not readily get him into an armed force. He is more willing to come in as an officer and in the higher paid grades ; he is less willing to enter the lower ranks.

MR. A. G. MORKILL : Does that go for the Home Guard ? Do the Chinese join the Home Guard in satisfactory numbers ?

THE LECTURER : Yes, they join in satisfactory numbers. The Home Guard which protects the tin mines in the Perak area is almost entirely Chinese.

CAPTAIN M. E. HOWARD : What part is being played by the Malays and Chinese in the higher commands on the positive and negative side of the war ? I gather that a member sits on the State Council, but I do not gather that there is one on the District or Federation Council. Can you elucidate that ?

THE LECTURER : The district officer is in many cases a Malay. At the Federal level there is no Malay or Chinese representation on the Direction of Operations Committee, but there are, of course, Malay and Chinese members of the Legislative Council.

CAPTAIN D. D. RANFT : With regard to the forts being established in the jungle in the eastern part of Malaya, can you say how they are affecting the operations in that area ? I gather that in the early days of 1951, at the beginning of the Briggs plan, the idea was started but was not very successful. I wonder whether it has been found more successful in recent days.

THE LECTURER : It has certainly been found more successful now. The situation has changed since then, and it is much easier to get at these places. One of the difficulties of the jungle forts in 1951 was that they had to be established in places where it was very difficult to supply and relieve the people in them. Now that we have the helicopter, it is easier to relieve the people in them, and they are supplied from the air. Therefore the administrative problems are not so great. They are certainly paying a dividend. In addition to using them as a base for controlling and dominating militarily that part of the area, we are also using them to bring the administration to the aboriginal tribes. For instance, trading posts are being formed at these places where the aborigines can

bring in goods and trade them for beads and salt, cotton wares, and so forth. There is a dressing station in each fort and a very elementary kind of school is also being established for aboriginal children.

SQUADRON LEADER S. CURSETJEE : I should like to ask how the families of the British officers who have accompanied these officers to Malaya are protected against the terrorists. Are they fairly safely stationed there ?

THE LECTURER : You will find most of the families of the British soldiers who are out in Malaya are located in the main centres of population. There are a few who are out in battalion bases, but they are never located where there are no soldiers to protect them.

SQUADRON LEADER S. CURSETJEE : Is there any possibility of terrorist raids ?

THE LECTURER : The terrorists have never shown any inclination to come into the centres of population. In the main, they have carried out their acts of terrorism on the roads or railways, or in the more isolated parts of the country.

SQUADRON LEADER S. CURSETJEE : Away from Kuala Lumpur ?

THE LECTURER : Away from Kuala Lumpur and places like that. Of course, if the families are moved by road, they are provided with escorts.

MAJOR D. B. McMORLAND : Can you tell us how the war in Indo-China is affecting Malaya, and particularly the Malayan Communist Party ?

THE LECTURER : The war in Indo-China has a definite effect on the operations in Malaya, because the only real hope of the Communist terrorists who are operating in the jungle is that something will happen elsewhere which will turn the situation in their favour and that external assistance will eventually come to their rescue. They are in a pretty desperate situation at the moment. They are not making any progress ; as I explained, they have never got beyond the first phase of their operations. On the other hand, they are in a cleft stick. The leaders—most of them—have blood on their hands and are disinclined to come out. They are hanging on in the hope that the Communist pendulum may swing in their favour somewhere else. Any success in Indo-China gives them great heart.

LIEUT.-COLONEL E. B. BRASIER-CREAGH : Are the Communists getting relief or support through the coast line, which is very long ?

THE LECTURER : As far as we know, they are not. The Navy are continually patrolling up and down the coast and there is no indication that they are getting any assistance from outside by sea.

LIEUT.-COLONEL C. E. PIERSON : One great difficulty seems to be that there is no defensible frontier, owing to the forests. Can anything be done, in addition to the forts, on a wider scale, in the way of deforestation to improve the field of fire ?

THE LECTURER : The problem is insuperable. The jungles are so vast. The trees are anything from 150 to 200 feet high and in many cases 12 feet in diameter at the bottom. Clearing large areas and also the jungle undergrowth and bamboo on any large scale is not feasible. Even to clear the area required for one of the jungle forts and its field of fire will take up to a month. Extensive clearance of the jungle would not be a practicable proposition.

COLONEL A. DE G. BEST : Can you tell us what is the state of health of the Gurkha Brigade ? They came in 1948 to Malaya, and the climate is all against them. They are hill people, living in a very steamy, sweaty place. Can they go on indefinitely ? Do they stay on always ?

THE LECTURER : It is true that the Gurkha comes from the hills. Nevertheless, while he has been in Malaya his standard of health has been extremely high. The health statistics of the army in Malaya are very satisfactory. The Gurkha, with his endurance

and fighting spirit, is in no way disturbed by having to operate in the Malayan jungle, although he normally prefers the hills.

MAJOR D. G. HOLMES : Various sources of intelligence have been mentioned, among them air reconnaissance. I am interested in air photography. Can you tell me if you have obtained any real intelligence value from that source ?

THE LECTURER : We have obtained value from air photography. But the trouble is that the extent of the area is very great, and the climate is against air photography. It is a steamy climate, and there is almost continuous cloud over the country. You only get short periods and sometimes no periods at all when you can do photography.

MAJOR-GENERAL B. T. WILSON : I gather that routine security in Malaya is mostly carried on by the three kinds of police and that the army units are used for special jobs. I wonder whether, in a few words, you could give us a rough picture of what a battalion does in the normal course during a period of a month. What would it actually be doing every day ?

THE LECTURER : You will get a battalion located to support the police in a certain area. It will normally be disposed in company bases which are dotted about at various strategic points in its area. We keep them out like that in order to facilitate the job of getting out into the jungle quickly to act on information which comes in, without having to get past large sections of the civilian population. If we keep them in a large town, the Communists in the jungle know soon after they have moved out. The bush telegraph works extremely well.

We have found that patrolling on no information did not produce results that were worth while. There is usually information coming in through the police on terrorists' movement or intentions. The company will then lay on an ambush to trap them. They may have to go on three, four, five, or even more nights in succession before that lot turn up. They may even have to drop it and start again somewhere else.

Then there are patrols into and around selected areas to locate tracks, terrorist camps, or food dumps which are suspected of being there.

Moreover, there are continually being laid on what we call food control operations which might be worth describing. They are combined operations between police and soldiers and civil administration to squeeze the Communists' food supplies and make them come out and surrender, or make contact where they can be killed. In order to do that, a comparatively small area is first declared a food control area. In that area an operational rice ration is imposed. It is a low ration which does not allow them to build up reserves. By house to house visits the civil administration buy up all the surplus rice and carry it away, and no food is allowed into the area except under police permission. In addition, the police usually know who have been supplying the Communists with food and they are arrested ; and the soldiers start active patrolling in all the areas where there are known Communists, to chase them round and ensure that they cannot go to ground and live on reduced rations. They also pick up any dumps of food they find in the jungle. In that way, you start a squeeze from the point of view of food. Then you have to sit down with patience and wait six weeks or two months. The Communists usually have six weeks to two months' food with them. At the end, they are beginning to starve and they have to come out and surrender or else make contact with the civil population, and the soldiers and police are waiting for them.

The trouble is to maintain patience for two months. People begin to get impatient and say nothing is going to come of this. Let us call it off and do something else ! When you have patience to hang on for two months, you suddenly begin to get surrenders, contacts, and kills. The surrenders begin to give information and tell you where the others are. That leads to more kills and more surrenders. It becomes a snowball. The population begin to have confidence and come out and tell you where the Communists are, and that is how it goes on.

MAJOR-GENERAL B. T. WILSON : Does the battalion commander deal with the district officers ?

THE LECTURER : In most places the district officer deals with the battalion commander and the officer superintending police, but military boundaries cannot always coincide with civil boundaries and so the D.O. may deal with a company commander in some places.

MR. ANDREW ROTH : Is there any indication of the idea of the Communist Command as to how long they must remain in this cleft stick before they are rescued from outside ? How would they prefer to spend the time of waiting : in the deep jungle ? Or, if opportunity were given, would they return to the 1945/48 period of economic penetration ?

THE LECTURER : The indications are that they are going into the deep jungle, where they are attempting to form bases. This is indicated by the large number of cultivation areas visible from the air. The probability is that they intend to withdraw into these bases and hope that one day someone will come to their rescue.

It would be difficult for the leaders to come out and live amongst the civilian population. Most of them are well known, and they would find it difficult to take off their uniform and mingle with the population without being picked up. Most of them have blood on their hands and they would be for it if they were picked up, so the probability is that they will prefer to remain in the deep jungle.

CAPTAIN A. R. FARQUHAR, R.N. : It was stated in the Press some months ago that they were changing their plans and were going to play down active terrorism and concentrate on the civil side. Is that true, and if so is it having any effect ?

THE LECTURER : As far as we know it is true. There are definite indications that they are playing down terrorism. Although the improvement in the situation must be attributed to the success of the security forces, the great reduction in the number of incidents can also be attributed in part to a change of policy.

There is no doubt that once they change their policy they will concentrate on penetration in the labour field, in trades unions, and the other political organizations in the country. They are almost certainly doing that now. It is being watched, but they are almost certainly trying to do it.

CAPTAIN FARQUHAR, R.N. : Will that make it more difficult for you ?

THE LECTURER : It is more difficult to deal with, because it is clandestine.

MAJOR-GENERAL R. E. VYVYAN : How do the terrorist bands communicate with one another ? Do they use wireless ?

THE LECTURER : I am glad you asked that question. I ought to have answered it in the lecture. As far as we know they have not got wireless, although they are making some effort to get it. We have found old wireless sets in camps, but not in a serviceable state of repair. As far as we know they do not use wireless. Almost certainly, they do not use it for internal communication. They may be trying to establish it for communication outside the country.

They use couriers for communications. They have what are called open couriers, who are people dressed in civilian clothes and using public transport quite openly, and closed couriers who operate in the jungle, moving from one courier post to another. But as you can see, that type of communication is very slow.

BRIGADIER K. B. S. CRAWFORD : It may be of interest to recall that in the 1941/42 campaign, also, the General Staff relied on the police for their information. Towards the end of the campaign, they used to say they never got any reports worth having at all. At that time I think the police and local inhabitants were terrified by the Japanese, whose numerical superiority and supposed prestige stopped them from saying anything. Some

of them helped the enemy all they could. General Percival said in his despatch that the future organization of intelligence in the Far East requires a separate study.

In the present war, we started in the same way and for a long time were under the same disability, I gather. The question of prestige is worth noticing; our prestige has been restored, and I am sure it has tremendously influenced the result.

THE CHAIRMAN: From what we have heard, several points stand out in this great story; of what is happening in the jungle, in the dark, evergreen forest which covers, as you probably know, more than four-fifths of the whole country.

Perhaps the most outstanding is the need for the unity of the population of over six million. Slightly less than half of these are Malays. There are two million Chinese and half a million Indians. Those are the three leading races by numbers and they all speak different languages. They are still suspicious of one another, but gradually—as we have heard—they are learning that they all have a common aim. As we have also heard, our hope is to persuade all the various peoples to accept a common loyalty. And how deeply we all wish General Templer every success in his battle for the hearts and minds of these various peoples.

On your behalf, I wish to thank our lecturer for the most interesting, able, and encouraging presentation that he has given us this afternoon. (*Applause.*)

SCIENCE IN WAR

By DR. O. H. WANSBROUGH-JONES, C.B., O.B.E.

On Wednesday, 20th January, 1954, at 3 p.m.

GENERAL SIR OUVRY ROBERTS, G.C.B., K.B.E., D.S.O., A.D.C.,
in the Chair.

THE CHAIRMAN: I do not think Dr. Wansbrough-Jones needs any introduction. He has spoken here before. Although I was not present at that time, I read what he had said on that occasion. I know him well; I believe he was at Cambridge with me, and I would say, in view of the fact that the accusation is sometimes made against scientists that they are apt to be inhuman, that I think Dr. Wansbrough-Jones is one of the most human men that I have known.

LECTURE

BUT for the certainty that such a title would have been grossly misunderstood, and seems to impinge on the fields of others, I would really have preferred to have called this lecture "Science in Peace" or, cumbersome though it is, "The use of science for strengthening defence," for it is on that topic that I propose to speak. It is indeed, I think, far more to the point, in this ninth year of official peace, to speak of the part the scientist is playing now, rather than the part he has played in past wars. Nevertheless, you may reasonably expect from me some forecast of the part that science and its practitioners might play in the unhappy event of another war, and I will have a little to say about that.

My audience will realize that I have to try to encompass two rather considerable difficulties in addressing them on this topic at all, whatever I call it. I hope that if in some parts of my talk they are disappointed at the absence of some detailed information, they will be tolerant, remembering that I am a public servant working in a great Ministry and that though I am, by permission, speaking to them as a private individual, and that what I have to say officially represents only my personal views, there are, obviously, major matters of policy on which I ought not to speak at all.

Secondly, to remain within the proper confines of security there are many things which would, I know, be of great interest to my hearers and which would come, very appropriately, within the scope of such a lecture as this, but on grounds of security I can only treat them in the sketchiest possible manner, or in some cases not refer to them at all.

Let me give you an outline of the way in which I propose to treat my subject.

At other times and in other places other people, and I myself, have discussed the way in which the scientist has come to play the part he now does in military affairs, and I propose to say no more about that than, as a starting point, to define where I think he now stands and where he would stand in any future major war. This I will do very shortly.

I then propose to treat three major aspects of science in a future war:

(a) I will discuss the need for making proper preparations to utilize the scientific and technical developments that will undoubtedly provide new and improved weapons and equipment for all three fighting Services, and say a little of what has been done.

(b) I want to discuss the general question of research in support of the technical developments that the fighting Services will need, how far it is proper

and necessary for governments to sponsor such research or to conduct it from their own direct resources.

(c) Thirdly, I want to try to give some indications, and here security restrictions are necessarily hampering, of how present or foreseeable scientific developments may alter the way major campaigns have to be conducted.

I shall end by a little consideration of some suggestions that I made when I had the honour of lecturing here four years ago, to see how far, exhibiting hindsight, they are still sensible and how far I dare to try to go forward from them. This has, of course, involved me in reading again a lecture I gave then. It can be discouraging to read again one's old papers, but as I can hardly expect anybody else to reread the lecture, it was only fair that I should do it myself.

Those who are well acquainted with the jargon which we use might remark, from what I have said so far, on the fact, which may seem peculiar, that while I am preparing to speak on utilization, on research, and on future military developments, I do not apparently propose to speak at all about current technical development even though it is, of course, on development rather than on research that much the greater part of the rather large funds that are committed to research and development is spent.

I have three reasons—which I think are good—for taking this line. The first, and perhaps the least good reason, is that to discuss development would provide even greater security problems than to discuss research. The second is that one cannot discuss development without going into a rather undesirable mass of detail. The third, and I think the most important and significant of the lot, is that I think, here, we can take development for granted.

It can hardly be said too often that once scientific principles are established (and only new thought or work, otherwise called research, can establish them), technical development follows as a matter of course and with certainty. The speed of such development depends on two things, the incentive or degree of urgency, and the effort, money, or scientific potential that is applied. The most outstanding examples of this truism are plainly to be found now in the atomic field. The acceptance of astonishing risks by the Allies in the war on the development of the first atomic weapons, minimized only by attacking on a very broad technical front and, therefore, at great expense, is one example, or the successes of the Russians in developing, in really quite a short time, what some might call an old-fashioned atomic bomb and now becoming capable of setting up a thermo-nuclear reaction, is another. The general principle is, I think, absolute. While the proper allocation of resources to development is immensely important when resources are not unlimited, and they certainly are not, there are not really any broad principles to discuss or any detailed consequences to display. All that is really needed is resources, and machinery to devote them selectively, when they are inadequate, to the most profitable targets. On the whole, in this Country, we are fairly good at that.

Let me turn now to my first topic.

STATEMENT OF THE POSITION OF SCIENCE AND THE SCIENTIST IN MILITARY AFFAIRS TO-DAY

The story of the movement of the scientist concerned with military affairs from the outhouse to the back room, and from the back room to the front, has been told fairly frequently. In the last war senior scientists were asked to concern themselves

not just with invention, nor indeed even solely with the planning of research programmes, but to consider the use in operations of new weapons; later, with the scientific use of well-tried weapons, the effects of which were thought to be well known; and, finally, with tactical and strategical concepts themselves. They did well.

Since the war, organizations have been retained within the Ministry of Defence and all the fighting Services, so that the same sort of scientific advice is available on a quite considerable scale in peace, capable of ready expansion in war. I personally see no signs of any diminution in the confidence which, rightly or wrongly (of course I think rightly), was placed in the scientist. In this connection I want to diverge a little and speak of a matter that is relevant, and try to rectify a little the concept which has had so much prominence in the Press, that the scientist, as a rule, is ignorant of the humanities and, indeed, of other things. I suggest, indeed, that if he is so ignorant, he would not in fact be capable of playing the general part he does, let alone be encouraged to do so.

The Times on 15th September, 1953, in a very interesting article entitled "From Ideas to Ironmongery" says, rather didactically, "The chief reason for the present odd notion that the scientific cobbler should stick to his scientific last is that the education of scientists and engineers is too narrow. They should be taught more of the humanities, just as the humanists should be taught a little science so that they would more frequently understand what their scientific colleagues were talking about."

This view is commonly expressed, naturally enough, more frequently by the humanists than by the scientists. Often it is a good enough reason for keeping tiresomely realistic scientists at the bench and away from the boardroom table.

I have mentioned the part which the scientist played in the operations of war in the years 1939 to 1945 and will discuss more the part that they are playing now in the operations designed to secure for this Country an adequate defence. The fact that in these military surroundings they are not accused of lacking in broad knowledge might be due to one of three causes, that the practices of war do not require a wide general education, or that the serving officers with whom they serve are themselves so ill educated that they do not observe the deficiencies of their scientific colleagues, or that the current charge is just not true. I can think of no other explanations.

Taking these in turn, it may seem a paradox to state that a broad knowledge of the humanities is necessary for the successful practice of such an unpleasant operation as war, but it is true. It seems that senior officers do make successes of other careers, or write well, or even paint well. If scientists were generally ignorant they would soon hear about it from their Service colleagues.

I therefore happily conclude that the last of my reasons is correct and that the Services are simply in advance of many other sections of the community, and this indeed was the lesson that many of us were swift to learn when we came into the executive sections of the three Services in the war, from our university, professional, or commercial background.

There are other obvious tests of the general thesis I am proposing that scientists are not so ill educated (limited by the statement that I am referring to the better class of scientist), which again I put forward as a corrective rather than as a statement that all is well. The first thing a scientist must be is to be a good scientist, and this involves the very diligent application of a good brain to a very difficult subject. It is within the experience of all of us who have been associated with the under-

graduate and graduate teaching of science, that the young scientist inevitably must spend more time at his work than those who study the humanities. Were it not for the fact that most of them do have very quick brains and wide curiosity, I think that they would certainly emerge as narrow-minded specialists, and the fact that the better ones so rarely do is to my mind the result of the combination of their general scientific curiosity to know about things that others talk about and their quickness in apprehension.

I cannot support with accurate statistics my certain belief that, overall, the better scientists have wider interests as well as a more profound knowledge of their profession than, say, the modern linguist or lawyer, but I am sure it is true. On this point I have taken the advice of an eminent pluralist colleague of mine who besides being a scientist of distinction is a member of a board of one of our largest companies, an author of repute, and who has unrivalled opportunities for interviewing the young scientists.

As to the desirability of the humanists being taught "a little science" so that they would more frequently understand what their scientific colleagues were talking about, I would agree the objective but perhaps dispute the detail. The only people whom I have found hard to convince on scientific matters in which I knew I was right, were those who knew a little science, and how very little they need to know to think they know rather a lot. Let the humanists have explained to them something of the history of science, something of its excitements, and of its disappointments, that shine out so rarely in the case of the former and so frequently in the case of the latter, against the toilsome background of unremitting solid slogging in the laboratory, the library, or the writing desk. Let them understand—somehow—the scientist's method of work, as by now they understand that of their doctor, their solicitor, their grocer, or their gardener, and when they do, I believe that many of the vague charges about uneducated scientists will cease.

Already, I believe that there are signs that this is happening outside the Services as it has already happened inside the Services.

If I have dwelt rather at length on that topic, I apologize; but you will see how it can lead on to my next major head.

THE UTILIZATION OF SCIENTIFIC AND TECHNICAL DEVELOPMENT

It is a commonplace criticism of this Country that while we are often in the front line in research, we often allow other countries to run away with the results. Probably this is less true in military affairs than in other matters. Indeed, I think it is true to say that our Country's record in this connection in the last war was a very good one, but there is no doubt that preparations ought to be being made, as to a degree they are, to get full utilization of the new and improved weapons that are emerging. I believe that this will have to be done principally at three main levels. I have just touched on the first already, the existence of well-planned and well-staffed scientific advisory and investigating groups within the Services themselves. These must be manned at the top by men of good scientific standing, throughout by good scientists, and preferably by well-educated scientists, with a real interest in and understanding of the Services. At the present time, there is probably enough of these men available. There is a carry over from the last war, and already the impact of National Service is resulting in many of the youngest generation of scientists having at least had an introduction to one or other of the Services. I see no cause for disquiet on this score. Perhaps a little more might be done in regard to the allocation of scientists doing their National

Service and perhaps a little more, too, to introduce some of the younger defence scientists who are working in government establishments to operations, but a certain amount is being done. Young scientists doing National Service are very carefully screened, so that as far as possible their special talents are employed during their period of service, or at the least they receive training which will make them specially useful should an emergency arise. Likewise, a certain number of young scientists from the government establishments are attached for shorter or longer periods to formations doing manœuvres or cold war operations, and from that they learn a great deal.

The second level at which scientific understanding must increase is plainly at the officer level, and here I would like to pay tribute to the Army particularly, for what they have done in establishing and developing the Royal Military College of Science, which must now rank as a first class scientific institution, one in which science is thoroughly taught to all arms, not just to the technical arms, with the minimum necessary bias towards army affairs; in reality it is a Military College of Science rather than a College of Military Science.

There, an increasing number of young officers are being taught science so well, and also introduced to production matters, that the output could in many cases, were it necessary, play a very useful part themselves in scientific research and development, or in production. It is necessary, I consider, that a certain number should reach this very high standard, even though the proper intention is that, generally speaking, these military scientific graduates shall be used for quite a different purpose, to enable the Army at all levels to appreciate the new scientific opportunities that will come its way. A short look at the record of the Royal Military College of Science is quite illuminating.

Statistics show, it seems to me, that any straight comparison in the teaching of engineering or science at Shrivenham, and the quality of those taught, with a selection of representative technical colleges (which comparison might be thought reasonable, since both are teaching to give a scientific background to a form of technology) shows the Royal Military College of Science far ahead, judged by the percentage of honours gained, the percentage of passes, and a very low failure rate.

A comparison with Universities—which in my opinion is the standard by which Shrivenham ought to be judged—is by no means discouraging for a relatively new academic institution, teaching Army officers for whom science or engineering is a professional background rather than a professional necessity. Over a period of four years over a consistent syllabus 11 men got Firsts; 63 got Seconds; and 60 Pass degrees: with only 50 failures from an effective entry of 184. This result is actually above normal university standard, especially if one allows for some special consideration attaching to a number of the failures. Examinations are not everything; but they are still a very useful test indeed, and of more than purely intellectual qualities.

In stressing the leadership of the Army in this way, I do not want to appear prejudiced in its favour as against the other two Services. I think the other two Services were forced earlier to recognize the great technical complexity of their tasks and had therefore given a greater degree of technical training to their young officers before the last war than had the Army. And they still do. I hope sometime, though, that they will to an ever increasing extent follow the lead of the Army and teach more science, even if that means less technology.

There are two recent developments at Shrivenham which I think are good. The first is the introduction of short courses for many officers who are just not equipped

to take the full scientific course, but who can be introduced to the methods of science and the scientific practices of thought. Again officers from all arms, including the so-called but non-existent non-technical ones, are encouraged to attend. This is the converse of the proposition that scientists must learn about the humanities. As yet these courses are rather experimental, and perhaps judgment on their value should be withheld for the present, though judgment on their potential value need not be suspended. The second quite interesting innovation is the establishment, annually, of some eight or ten studentships for boys of 18 who can take a full degree course in this military atmosphere and who may turn out to be an admirable source of recruits for the defence side of the Scientific Civil Service of the future. I can personally think of no better way of introducing them to the military problems, as well as to the officers with whom in later years they will have to work, than by their sharing a residential college course together.

Thirdly, in the utilization of scientific developments, where there is a need for an increasing number of rather good technicians to operate and maintain the equipments whose complexity is all the time increasing, I have real doubts both as to the accuracy of the planning and the completeness of the preparations that are being made. It is just a matter of technical manpower, of which it is notorious this Country is short. I think it is true to say that in the last war we just got by somehow. We did manage to find just enough technicians to manufacture, maintain, and operate in the field, the diverse and complicated radars, aircraft, and so on, which are necessary to modern forces. We only just did it. Though I cannot prove it with certainty, I am nonetheless quite certain that the number of such men required in the future for the specialist trades and corps of the Services has increased considerably more than has the number being trained. It is commonly said that British industry needs more technicians, and of course something is being done about it by expanding one college of technology and generally trying to foster the normal technical colleges. If any further argument is needed in favour of doing this, it may be found in the potential needs of the fighting Services and, for that matter, in the Civil Defence Services of the future.

RESEARCH

Though it may seem obvious, it yet needs argument to show why the Government does research at all instead of leaving it to Universities, contractors, and the like, as actually is much more widely the case in the U.S.A. than it is here.

The case needs argument, because by scientific and national tradition it is the Universities who lead the field in what is generally called basic research, and I hope in most fields they always will, but there are some areas in which governments must operate. Shortly they are the following :—

- (a) Areas in which researches must remain secret.
- (b) Areas in which research is needed to meet new needs, when there is a strong military, but little industrial, requirement, and the scientific interest is not great.
- (c) Areas in which the cost of research or the capital equipment needed is so great that no University or even firm could really undertake the task for itself.

Of the first category it is to be hoped that the amount of truly secret research will be kept as small as possible, but inevitably there is some. In passing, it is of interest to notice that it is in the newest fields, such as atomic energy or microbiology,

that the greatest of freedom in publication of research is actually appropriate, simply because these are new fields. But in some of the older ones there is still great need for research, sometimes in aid of better materials for old weapons, such as erosion resisting gun barrels, or in well-studied fields such as external ballistics, as new projectile shapes are considered: chemical warfare is getting an old field now by military standards: yet research has shown how much more is needed if we are to have a good defence, and there are many other examples. All such work ought to be done in a Government establishment because it is generally conceded that only to the smallest degree should research be carried out at a University unless it can be published openly.

The second type of research I mentioned may seem to be more pedestrian, but it may be extremely important. Every great industrial firm knows by experience that, in order to keep its place in the world market, it must actually do research not only on new processes and new products; it must continuously work towards improving old processes for making existing products. There are many cases in the field of defence science where it is only by running extremely fast that we can stay where we are. It might, for example, be thought that after 500 years of knowledge of explosives, and 50 years of really solid scientific work on explosives and propellants, work which has reached a stage at which we can say with reasonable certainty that further exploration will not produce an explosive or propellant that has more than, say, ten per cent. extra power, the time had about come at which we should call it a day, and concentrate our resources on something else. Incidentally, one of the most difficult things in this world is to stop a piece of research that is still scientifically interesting. Good reasons can always be given for continuing to a further point, which is always said to be going to be, but never is, the point of completion, but I can give a reassurance that as we are all very well aware of the difficulty, we do try extremely hard to meet it. But with explosives and propellants and, too, with a good many other examples, we must continue research, in order to get cheaper manufacture, or at least try to prevent costs from rising, to increase the Country's independence of overseas resources, and, of course, to meet new needs. For example, the propellant requirements for rockets are far more rigorous in some respects than the exceedingly rigorous ones that have long been met for artillery. This type of research can be costly, is often slow, is not dramatic, and generally cannot be published, but it is exceedingly important. This is a convenient place to pay tribute to the many relatively unknown, but extremely high class, scientists who have been working on these and allied problems for the Services for most of their working life. Without their efforts I do not know where we should have got to. If they had been working in more publishable or in more popular fields, they might well have become widely known scientific men.

But it is the third argument for Government research that now begins to dominate the picture. There are some types of research, aerodynamics and atomic energy being the two most obvious, that require equipment far too expensive for any firm, and probably too massive for any University. It must be wrong when the possession of equipment tends to take charge of the direction of a university school of research, yet it could easily happen. Aerodynamics has now reached the stage where everybody needs supersonic wind tunnels of various sizes and speeds. It probably is not generally realized that as much as 250,000 h.p. may be needed to operate equipment for research and tests that should be done now. Running costs of such plant, without allowing for depreciation, may easily run up to £1,000 an hour. Such facilities as these can plainly only be provided on a national scale. This is not a new problem.

To an extent it is one of those towards meeting which the Department of Scientific and Industrial Research was set up: but it is an expanding one and one towards which quite a lot of hard thinking ought to be devoted. If research facilities are being put up nationally, or even, as in the case of C.E.R.N.,¹ on atomic research, internationally, what are the new problems of selection of what facilities are to be provided, the selection of research objectives, the problems of manning and operating these facilities, and the problem of publication of results, and how are they being faced? I do not know if my trial answers will be agreed. On the allocation of money to research facilities on a national scale, as it is public money that is being spent directly, I think one ought to maintain firmly that the selection of facilities to be built must be in direct relation to the assessed importance of the objectives in terms of an improved defence for the Country or gains in export trade (it is safe enough to link the two, when our own defence depends more on a thoroughly strong industrial potential than on anything else, apart from national morale), and that the criterion of absolute scientific importance becomes secondary. If this is so, the selection of the subjects for capital expenditure on a large scale must be by Government decision, for in no other circle is it possible for all relevant factors to be known and assessed. The selection and decision must therefore be by Governments, aided and advised by their professional administrators and scientific civil servants, and this lends point to my earlier remarks on the need for the former to have scientific understanding and the latter to be trained as widely as possible. For the half century that this Country was by general acknowledgment in the scientific lead, there was no Government direction, very little priming from Government finance, very little Government help given to the Universities; and individuals and the Royal Society did all that was done. Nostalgically, we would like to return to those conditions; yet scientifically and financially, I think it is impossible. I think we are moving steadily in the right direction, and the task is to get the right decisions. There must be the right people in key administrative positions. I wonder who, by his courage and understanding, did more for aircraft than Sir Archibald Rowlands, "the Civil Servant in the Market Place," who died last year.

Secondly, control of programmes and manning. Here I take rather the reverse view. I think that to the greatest possible degree national facilities ought to be used as widely as possible, be available to teams of workers from industry and the Universities, and if they are expensive to operate, be subsidized. Otherwise, we shall not have all possible talent employed. For years the national wind tunnels at Farnborough and Teddington have been widely available to industry. New facilities, such as those at Harwell on atomic energy, are used publicly as well as privately, as is right. The maximum general use ought to be made of all such research facilities even if they are designed mainly for defence purposes, and such indeed is the policy. It may be that as knowledge of these facilities increases, so will demands for their use: or it may be necessary to extend the present mechanism for bringing knowledge of the opportunities to all concerned, or to devise new mechanisms.

The possession by the Government of so much investment in research facilities brings, too, a heavy additional responsibility—publication. While much defence research must, as I have said before, remain secret, and unpublished, at least for a time, the self interest of the owners of the research—that is the Government—as well as scientific practice both strongly demand the maximum freedom in publication. We know that science grows only by the exchange of ideas, and we know that if we are

¹ Conseil Européen pour la Recherche Nucléaire.

too reticent in publishing work from our establishments we shall lose by such a policy in the long term. The common argument that too much secrecy will deter recruitment of the best men has force, but less force than the fact that all experience proves that to increase in knowledge you must be prepared to give away much of what you have already learned secretly. This means, first, a liberal policy in authorizing publication, and it exists. Secondly, a new position is arising in which the publishing societies are no longer able to finance the increasing volume of publication. The load is falling more and more on the Universities, industry, and other places where research is done—including Government establishments. Hence the Government is having increasingly to finance scientific publications—as it is doing. It is a new responsibility that must be accepted.

Now I have, I admit, spent a long time on generalities, yet I fear you had hoped or expected to hear something about results in the form of weapons, and I said myself I would speak a little on the influence, as I saw it, of research, translated by development into hardware, on the conduct of war. In a general way I can try. But it is difficult without going into too much detail.

At the present time, everybody knows that military thinking must centre about the use in some form or other of nuclear explosives; divided into three main problems, namely, delivery of atomic weapons, active defence against their delivery, and passive defence if they are delivered. The power of nuclear explosives dwarfs every other form of destructive power of which we know with certainty; and it is also certain that the availability of such destructive power increases every day as its cost decreases, which is no comforting thought. Yet these three problems are not really different in kind if the explosive is chemical or nuclear—that distinction neither eases nor sharpens the problem. We therefore think immediately of carriers of explosives, on sea, over land, by air. We know that carriage can be by all three Services using normal vehicles, ships, guns or rockets, aircraft, and the only major difference is that one can afford to use a more refined or expensive vehicle to carry such a devastating warhead. It is of course on this account that the very expensive types of research of which I have been speaking are justified because thus is produced the highest quality of vehicle. Taking first the obvious carrier, the aircraft. It is axiomatic that any increase in performance of aircraft can be used to increase the immunity of the aircraft. It seems to me, also, to be axiomatic that all types of carriers, whether they be air weapons, ground weapons, or sea weapons, can be improved if cost is not important. There is obviously room for improvement in the type of bomber that carries an atomic bomb. It is equally obvious, if only from our experience in the last war of the German V.2, that very heavy rockets can be built which will carry over a considerable range an atomic warhead. If already one very heavy gun that will fire an atomic shell has been produced, thereby proving the principle that atomic warheads can be fired from a recoil weapon, it is obvious that such weapons can be improved. I think you will agree that it would be improper for me to indicate in any degree on which our own research and development is primarily directed.

But the case that all sorts of improved methods of carriage of atomic weapons is possible is a clear one. I would only say that just to carry the atomic warhead and dump it near the target is quite obviously, from what has been published about the effect of atomic bombs, not going to be good enough: accuracy is a very important requirement indeed.

It is certainly, therefore, as useful to study all means of active defence as it would be wrongly despondent not to. The first method of defence is the obvious one,

counter attack. The next, and a great need, is to have room in which the defence may operate—literally, defence in depth. Without depth, any air defence is cruelly handicapped. This fact alone is more than enough to justify the retention of a Navy to keep the seas for us, and the maintenance of land forces, so far as we are concerned, overseas, without even considering the many other arguments, both classical and new, for both. But given room, there can be radars to detect and track, fighter aircraft to operate, and, in easily foreseeable time, guided weapons to be despatched to hit their targets. Whenever we are not granted depth, that is the first thing for which we must fight.

The trend of development of the modern fighter is as easy to see in general as it may be hard to-day to define in particular. It will become increasingly a vehicle for carrying armament and the means of using it, the weight and complexity of which are penalties for which only superlative aerodynamic performance will pay. How in detail this bill will be paid is still not clear; to find the answers to these questions is a research problem of the utmost importance for which we must be prepared to pay big money. Yet I am now more certain than I was a year or two ago that, technically, fighters with armament can be developed that will have a proportionate advantage in speed, climb, manoeuvrability, and armament that, in fair conditions, will enable them to attack bombers with a measure of success. I do not think we can conceivably afford to leave out this step.

Indeed, I am not so sure that fighters will not remain as a complement to the next means of active defence to arrive, the ground-to-air guided weapon, in something of the same sort of way as anti-aircraft guns were a complement to fighters, and for as long. You have been told something of the progress of the guided weapons and I am not going into any details here. What is certain now is that this remarkable combination of propulsion, advanced aerodynamics, control, guidance, and warhead, all, incidentally, separately and linked, matters in which research as well as development problems abound, is coming, and coming soon. If it does, it is as a result of good planning as well as very good science and technology. When it comes, we shall unquestionably enormously reduce the effectiveness of any atomic attack on this Country.

I think it is perhaps in this stage that my earlier remarks about the need for scientific aptitude, if we are going to get full value from our weapons, have particular weight. The Royal Air Force, to which Service the task of using guided weapons of this sort has been assigned, has an immensely difficult task of organization, planning, and control to work through, if maximum operational efficiency is going to be achieved. New methods of control must come in: and it is philosophically suitable that the Service most accustomed to high speeds should take this on. But with all this ought we to expect a complete defence? We ought to aim for it, but not expect it, so we ought also to prepare a passive defence, Civil Defence, and of course we are, and again I do think it is really important to be neither despondent nor lethargic about it. There is so much that private institutions, large and small, and indeed private individuals, can do, the first by really quite simple plans for dispersion, and, when new construction is undertaken, the second by training and decreasing by knowledge the fear of the unknown, that I think the possible gains are such as to make an economical passive defence a most worthy objective. This is a field in which knowledge of effects can be followed by good assessment, and the best compromise between an utterly static, immobilized, unproductive population protected at immense cost, and an unprotected one offering a hostage to any aggressor, can be obtained.

Indeed, I think it is nearly known, because very good work has been done and the results are being used in Civil Defence at all levels.

I therefore feel entitled to maintain that with the three lines of defence against atomic weapons, the counter offensive, the active defence, and the passive defence, there is obtainable a sufficient measure of defence even against atomic attack to justify, on cold scientific grounds, leaving out all question of patriotic duty and feeling, the relatively optimistic line I have been taking—optimistic that is if we can predicate for years to come, for so long as attack on this Country is conceivable, the very large sums of money that will have to be spent to provide such a limited defence. Of course, for other reasons, I, and I imagine everyone else here, would support the provision of the best possible means of defence in any event; but it is especially disheartening to the scientist to have to work towards what he knows will be the best and yet in the end be ineffective. I am very glad I do not think I have to do this.

As I have only been able to give very scant treatment to this dominating problem of atomic warfare, I can plainly give practically none to those of what can be called conventional warfare. I have already said, in short, why it must continue—to give us depth is a sufficient reason in itself and there are certainly many others. I do want, however, to make a point on the tactical use of atomic weapons, of which so much is rightly being talked and written now. I want to subscribe fully to two generalizations that I believe are being accepted—that the advent of tactical atomic weapons on land and sea brings with it no more and no less than the possession of greatly increased fire power perhaps at greatly increased expense, and one day at less expense—with the obvious consequences of perhaps some alteration in organization and tactics, but no more revolutionary change than that. Secondly, it does not vastly diminish the size of the land forces which will be needed to carry out a task—indeed some authorities claim it may increase them. What it does do is to increase the need for great mobility, most accurate and speedy information, most careful and thoroughly scientific assessment of targets and results, and, of course, for first class training. And all of these except the last, and possibly to a degree even that, demand research and development of the highest order; so you can hardly wonder at my plea for research.

Now, four years after my last lecture here, I just want to mention a very few points to see if I can say I was right, if I can see I was not, and where we really know more than we did then. This is not done egotistically: it is the sort of vital check scientists, who have to think ahead or prophesy, must do.

I spoke then of the growing points of science and tried to isolate the most important. Of the three of which I spoke particularly—atomic energy, some biological fields, and aeronautics—it remains true that progress is accelerating on atomic energy. Our knowledge of biological processes and perhaps particularly biological structure, is extending in the most revealing manner. As to aeronautics, I see no signs of the curve of progress beginning to flatten out. Indeed, if anything, I think the last four years have opened up more new fields than they have shown old ones closing up.

When I spoke four years ago of the "hydrogen bomb," it was to say, in tolerably direct terms, that it would certainly be made. Now of course we know that thermonuclear processes have been tested on a large scale by two countries. Of biological warfare I see I said in effect that our knowledge both of its risks and the defence against it was so far from complete that no balance could be struck. The most I would care to say to-day is that knowledge of both aspects is increasing and the balance can still not be struck. On broader issues, I expressed a feeling rather than a considered

thought, that the advent of a super bomb might, after all, lead for the first time to an appreciation that such weapons just must not be used ; that the possession of them by both sides might neutralize the advantage to either. Others with far greater experience and knowledge than I, and with far greater power to bring such an outcome to pass, plainly have this feeling too.

Then I tried to analyse how, taking the principles of war as a guide, the conduct of war might seem to alter. And I came to one main conclusion, which was not a popular one, namely that command would tend inexorably to be more central than before, and I omitted, and was rightly taken to task for it, another far more important conclusion ; that with all these technical advantages the supreme factor would remain the power of men's minds to withstand hard doings on behalf of things that they really believed were right.

Of the first point, provided it is not taken too literally, and provided I may explain again that it is in terms of major strategy or total defence that I mean this, I am certain that it must happen in any future major war. The speed of thrust and counter-thrust and the increased ranges of attacking and defensive weapons, and the power, expense, and significance of individual weapons, all seem to me to point in this direction and to the need, therefore, of developing still further a thing which I think this Country is almost uniquely capable of developing, a form of central government in war and a form of central control of military operations that really can act with the speed and decision of the great field commanders.

I know people will dislike this concept and will regard it as a trend towards centralization, which it need not and must not become, and will feel that by such means one may lose the individual leadership through which alone campaigns are won. For my part, I do not believe this need happen, but I do believe that national and international command structures will have to develop more. The obvious success of S.H.A.P.E. as a headquarters does in fact rather support my theory.

But finally, when all has been said on technical matters, it will remain more true than ever that, at the end, the capacity for survival will depend on the beliefs, the resilience, and the courage of the citizens of any country, and this will depend on the education they have had and the leadership they are given.

In many respects the qualities and practices of leadership in this Country derive from the traditions and the training of all three Services, and compulsory National Service may do something to extend the Service influence. It is my own personal hope that my service or profession, the scientific profession, will also find itself in a position to contribute somewhat in a general sense by its general encouragement of straight objective thinking and its compulsory and inherent honesty.

DISCUSSION

SQUADRON LEADER S. CURSETJEE : I should like to ask the speaker whether a system of co-ordination exists between the research work of the Ministry of Supply and that of the aircraft manufacturers like de Havillands, Rolls Royce, and Vickers.

THE LECTURER : Yes, indeed ! I am not sure what it consists of. It is completely uncoded. But I can say that it is extraordinarily intimate, and extraordinarily effective. It is very difficult to draw an exact boundary.

If you read the aircraft papers, you will very often see a distinction drawn, which is perhaps an artificial one, between what is called a private venture enterprise—something the company wants to be able to develop itself and afterwards, perhaps, to exploit or put out for contract. There is no very hard and fast line, but I can say that the intimacy

between industry and ourselves, in design, development, and research, is quite remarkable. I would not say that it is unplanned or uncontrolled. It is a very remarkable example of the way in which the Government and industry can assist each other without laying down a rigid code of procedure.

LIEUT.-COLONEL S. M. GILBERT: I should like to ask the lecturer to enlarge a little on the distinction he made between a thermo-nuclear bomb and producing a thermo-nuclear explosion. It sounded as though you needed a lot of gear to do it at the moment.

Secondly, I should like to ask him, in connection with the depth required for defence, how much depth he needs in order to stop these explosions happening right over here?

THE LECTURER: The first question really arises from my own scientific caution. I do not think I know the precise distinction between creating a thermo-nuclear explosion and exploding a thermo-nuclear bomb. I was simply quoting the words, I think, of the press release given by President Truman. One knows with certainty that there was a thermo-nuclear explosion, but one does not know with certainty any more. I could not pretend to describe the carcass of the animal, the bomb, in any detail, even though one can guess what the works are.

You can deduce from what I said earlier, I think, that when the scientific principle has been proved, the working out, which is a technical development, will follow as surely as day follows night. The precise timing of when a thermo-nuclear bomb can be produced, I would not be prepared to give, for very obvious reasons.

Secondly, I am asked how much depth is needed. It is very difficult to give an answer to that question, and I am not sure I am the right person to give it. I believe the right person to give that in detail is probably the Quartermaster-General, but I do not suppose he would. Indeed, he confirms that he would not. Very simply, you might deduce the minimum almost from the curvature of the earth if you have also some idea of the length of warning you want, and can estimate the speed of the carriers or guided missiles I mentioned. Wellington might have thought himself fairly well off if he had ten miles. With the contraction of time and space we should need at least 200. But this is a guess at our bare minimum needs, related only to techniques and not to geography.

LIEUT.-COLONEL L. V. S. BLACKER: I should like to ask the lecturer whether he considers that science ought to step in and take a hand in promoting the abolition of the technically obsolete. Nobody ever seems to do that. There are a number of extremely obsolete organizations which cost a good deal of money. For instance, when General Sherman went marching through Georgia in 1864, I understand he used the railway system most effectively and efficiently; and the elder Moltke used the railways of southern Germany primarily as a strategic weapon. Railway troops were quite handy in the Sudan of 1883 and 1884, but that is a long time ago. Why do we still have them when the Army needs more modern means of transport?

THE LECTURER: I am not certain whether the point is that the railways are now obsolete and ought to be abolished.

LIEUT.-COLONEL L. V. S. BLACKER: Yes, exactly!

THE LECTURER: If that is so, I would say that that really is a matter of detailed logistics, which I should be very happy to refer to the Quartermaster-General. He may be prepared to answer that.

On the general matter, he has a point. I did just say in my remarks that nothing is harder in this world to stop than a piece of interesting research that looks as though it will lead to interesting scientific results and yet somehow its purpose has been diverted, or the technique it would help has been superseded. If it is an interesting scientific point, the men working on it cannot bear the idea of giving it up.

I can give an actual example where that happened. It took a long time to stop sound ranging—long after radar had gone a long way ahead.

I did say that stopping things was one of the hardest things to do, but that those who deal with these things are very much aware of it. They are very conscious of the difficulty, and they are trying to meet it. But, honestly, it is very much harder to stop things than it is to start things. It is not inertia. It is the real interest taken by scientists in their work. They cannot bear to give up really interesting scientific work.

COLONEL T. I. LLOYD : Can the lecturer say whether there has been any progress in psychology since he mentioned it four years ago ?

THE LECTURER : I did make a little note about this, which for want of time I left out. I said in the note I prepared that perhaps in one aspect of this—the general form of leadership or counter-leadership that might be given to the opposition country—psychological warfare is becoming and will remain increasingly important. I was prepared to pay this Institution a compliment, in that it had had no less than three lectures on psychological warfare in the last two years. It might be well to address your question to Richard Crossman. Or perhaps you heard him speak ?

I am not going to say—I do not think I know enough about it—that no real progress has been made in the scientific study of this subject. I think a lot of empirical work has been done in Korea and is being done in Malaya and elsewhere. This may eventually lead to a science of psychological warfare being built up. Just at the moment it is wildly empirical. It is certainly a thing to be studied and fostered in every way we can, but I do not quite know what the scientists can do about it.

AIR CHIEF MARSHAL SIR JAMES ROBB : I do not want to bother the lecturer with a question, but I should like to say that among the many interesting things we have heard this afternoon one of particular interest was the reference to fighters—the fact that the fighter still has a future.

One of the first things that happened when the nuclear explosive came into effect in 1945, and further developments were to be expected, was that we were informed, indirectly perhaps, that eventually the modern fighter, as we know it, would have no future. It would never be able to achieve the performance to deal with the bomber which would carry the nuclear bomb.

The statement that as much as 250,000 h.p.—more than enough to run a medium-sized town—may be required to operate equipment for research was also of interest. I think the time will soon come when we have to find a new term for horse-power. It does not mean quite what it used to mean to all of us. For example, eight or nine years ago when the Meteor was breaking the world speed record, its two Rolls Royce gas turbines had to give the equivalent of 12,000 h.p. each to enable it to reach speeds of over 600 miles an hour. With the new American fighter, the latest North American Skyraider, and the performance of going through the sound barrier in level flight and not in a dive, as our jets have to, the equivalent horse-power of that aircraft must be enormous.

THE LECTURER : I am glad we can reassure the Air Chief Marshal we do not want to abolish him yet. On further reflection, I agree that we have not come to the end of the road with fighters yet. There is a lot more to be done.

THE CHAIRMAN : As there are no further questions, I will try to sum up very shortly.

I should like first to say how honoured I thought I was before I came here to-day to be allowed to take the chair at a lecture by Dr. Wansbrough-Jones. I now know that I am even more honoured than I had thought. I would never dare to argue with him, and I hope I can put myself in the category of those who know enough science not to do so, and not of those who know nothing at all.

I have only one point which I really want to make, and I think it is a major issue that comes out of the whole of this talk. We are, in my opinion, in a time of very rapid scientific development as it affects the Services. In studying the issues of guided weapons, atomic energy, and aeronautics which are now developing, not to mention biological warfare, we are very much up against it. We are entirely dependent really, in all this, on our

scientific advisers, and we have fortunately many very good ones. But we are also up against the immense cost of all these weapons. We cannot afford to buy the quantities of all of them that we want. We have a problem which is an inter-Services and not an individual Service problem—the problem of trying to decide over the next ten years or so which of these weapons we are going for, which weapons and equipment we are going to buy, and in what quantity. It is a terribly difficult problem and we are going to have the greatest difficulty in solving it, as I see it facing us now.

I should like to offer a challenge to Dr. Wansbrough-Jones and the scientists. He said that we require more and more technicians. The administrative portion of the Army has grown out of all knowledge. My challenge to him is this: cannot the scientists do something to enable us to do with fewer technicians?

I am sure you all appreciate what an extremely busy man Dr. Wansbrough-Jones is. The field which he has covered in his lecture will give some idea of the immense amount of work which he has to do. He has succeeded in a most wonderful way in making this lecture interesting in spite of the very rigid security ban which has been placed on him. It must have been extremely difficult for him, itching to tell us things he knows so well but which he is not allowed to mention here. But in spite of that, his lecture has been intensely interesting.

I should like to say, on behalf of you all, that we thank him most sincerely indeed for the really wonderful lecture that he has given us. (*Applause.*)

THE PROBLEM OF KASHMIR

By LIEUT.-COLONEL THE LORD BIRDWOOD, M.V.O.

On Wednesday, 27th January, 1954, at 3 p.m.

LIEUT.-GENERAL SIR COLIN B. CALLANDER, K.B.E., C.B., M.C., in the Chair

THE CHAIRMAN : Lord Birdwood will need no introduction from me. As you know, he is a soldier himself and is the only son of a very distinguished soldier, a field-marshal well known for his great services to India and best known, perhaps, to most of us for his services as a fighting soldier, particularly associated with such names as Anzac.

Lord Birdwood, his son, served in the Indian Army for some 26 years. He joined the Indian Army in 1919, and knows a lot about the country. He is a great traveller and lecturer, and we are very lucky to have him here today.

The subject of Kashmir is one which is of great interest, particularly to many of us here who are soldiers and who look back on the days when we served in India years ago and have happy memories of Kashmir. The lecture might well be of a controversial nature, and I should like to read a letter which Lord Birdwood wrote when he accepted the invitation to give this lecture : " In regard to my approach to the problem of Kashmir, as one who believes passionately in the unity of the Commonwealth, I would of course always wish to convey an impression of complete impartiality as between one member and another. That being so, I attempt to tell the facts. In their application, there are facts and circumstances which support both the rival claims of India and Pakistan. It is quite impossible for any lecturer who relates factual truth to escape these circumstances. Any attempt to present a picture of equally balanced claims would, in my view, be a reflection on the intelligence of the audience. With this qualification, I think I can assure the Council that my whole approach is one of sympathy and understanding, believing as I do so sincerely in the reality of the membership of both India and Pakistan to the Commonwealth."

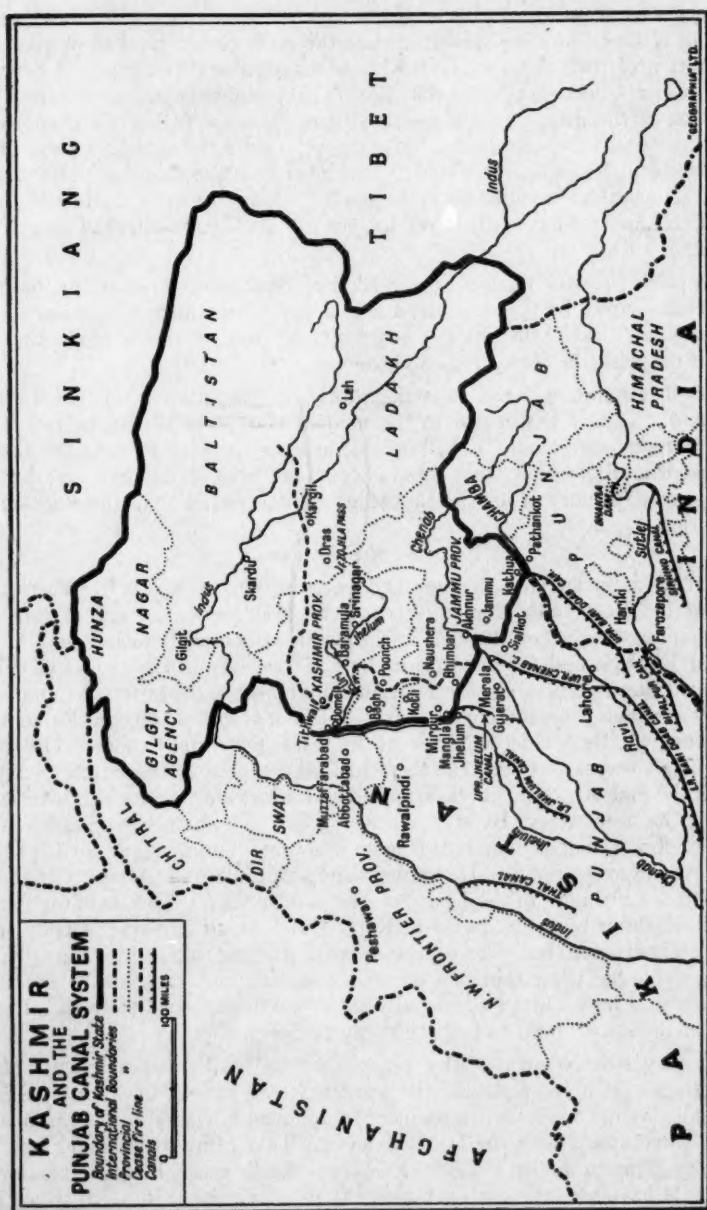
I now call upon Lord Birdwood to give his lecture.

LECTURE

I EXPECT you are probably familiar with the speaker who, on these occasions, usually starts with the encouraging observation that there are many in the room who know more about the subject than he does himself, and then goes on conclusively to prove his point! This afternoon, I am not claiming quite that protection. Rather am I claiming that in this problem of Kashmir there are so many blind alleys and unknown corners that it is very difficult for anyone to see the wood for the trees. When I remind you that the Representative of Pakistan, in presenting the Kashmir case before the Security Council on 5th and 6th March, 1951, occupied six hours, you will understand the kind of thing I mean.

In emphasizing what General Callander kindly drew your attention to, I would make one covering observation. In reviewing the great holocaust that swept over India in 1947, I think it is quite invidious to blame either Hindu or Muslim at the expense of the other community. It so happens that, in the case of Kashmir, I have to stress persecution in one direction more than the other—the persecution of Muslim by Hindu—but in other cases it might be different. With that observation, let me now turn to Kashmir.

May I, first of all, stress the urgency of the situation. It seems to me that at any time across the international scene there appear situations which might be described as diversions. Korea is a diversion—a formidable one certainly when weighed against the general clash of thought, but a diversion nevertheless. Kashmir



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is a diversion—not so formidable as Korea, not so evident at this moment as Mau Mau ; but a diversion if we view it against the clash of two rival ideologies, and a manifestation of that clash, charged with an international potential. I have only to draw your attention to the fact that Kashmir represents an international junction. If you look at the map, you will see that there are some five or six frontiers, and one of those frontiers particularly, Sinkiang, represents the potential for a Chinese Trojan Horse in Kashmir. One has to remember that the Buddhist community in Ladakh, 40,000 of them, until 90 years ago had close allegiance, both political and religious, to Lhasa. I have only to remind you of that to emphasize the international potential.

Then, also, the situation is charged with deep significance for our Commonwealth, for there can surely be no precedent for a situation in which two of our member States have faced each other for five years with all the appearance of wanting to go to war, if not with the actual final intention.

I shall attempt to give a straightforward presentation of the historical background. Then I shall come to the modern story, which may be regarded as starting in 1947; and, finally, I shall indulge in some speculation and some theories. I think we can all of us say what could happen and what should happen ; but very few of us, perhaps none of us, can say what will happen. I shall therefore offer no firm solution.

BACKGROUND HISTORY

In 1849, a certain Joseph Cunningham, a lieutenant of the Engineers in the service of the East India Company, wrote his well-known history of the Sikhs. Cunningham had served on the staff at the Battle of Sobraon which closed the First Sikh War in 1846, and for his services he had been given a post in the Political Department down at Bhopal, where presumably he wrote his history. Cunningham naturally covered very thoroughly our negotiations with a certain Rajah Gulab Singh, who had been chief minister at the Sikh Court in Lahore. The gist of Cunningham's accusation was that there had been a plan at the Battle of Sobraon by which the Sikh Army should be attacked and deserted by their own Government. The words he used were "By such discreet policy and shameless treason was the Battle of Sobraon fought", and, of course, was won. Cunningham, for his trouble, was removed from the Political Department and sent back to the Army. Cunningham went on to describe how, in the Treaty of Amritsar in 1846, the whole of the territory known as Kashmir was passed over to Rajah Gulab Singh for some 75 lakhs, which I think is about £600,000. Until quite recently the transaction was annually commemorated by the passing of one horse, six shawls, and 12 goats to the British Government. I have always wondered what on earth happened to them ! I understand that the shawls used to find their way to Queen Victoria.

You may have wondered why I have bothered with distant events of over 100 years ago. It is to emphasize the point that the present situation in Kashmir in no small way derives from a settlement of doubtful integrity or wisdom made by a British Government with the Dogra dynasty. That being so, it would have been satisfactory, to put it mildly, if a British Government, or at any rate a Commonwealth forum, could have seen this matter through to its conclusion. But that is not to be.

You will be familiar with the broad outline of Kashmir history. They are a soft, friendly people of no stamina who for centuries have been dominated first by Hindu Scythian princes, then by the Mogul emperors, then by the Duranis of Kabul, followed by the Sikhs, and finally by the Dogras of Jammu. They are a people of

whom their own national poet wrote that Kashmir had taken slavery to its bosom and it filled him with shame. The Representative of Pakistan before the Security Council put it a little less poetically and more realistically when he said that one soldier armed with no more than a bayonet would probably drive 4,000 Kashmiris in whatever direction he chose!

For our purposes, I think the view that we should accept is that of the Australian jurist, Sir Owen Dixon, who in his report wrote quite clearly that the Kashmiri, the inhabitant of the valley, would never exercise his vote according to his true inclination so long as there were foreign troops on his doorstep.

You will note that I have spoken of Kashmir as a valley. We are apt to think of this problem as one of a great Mohammedan mass of some three and one-half million dominated by a Hindu dynasty, a kind of Hyderabad situation in reverse; but in fact we should remember that the country is one of vast spaces and enormous mountain areas. There are very few means of communication, and whole communities live in isolation. There is in no sense whatever one country, Kashmir, belonging to one people, the Kashmiris.

When I spoke of the Kashmiris I had in mind, of course, the inhabitants of that rich fertile plain running east and west of Srinagar, 120 miles long and 30 miles broad. With this in mind, let us turn to the map and break the country up into its various communities.

In eastern Ladakh there are some 40,000 Buddhists occupying an area far greater than England. In the north-west there are the frontier districts, with some 380,000 Muslims. In the Jammu Province there are 1,560,000 people, of whom just over half are Muslims—830,000—and just under half, 730,000, are Hindus. In fact, one can say that the Jammu Province is divided by the River Chenab, and to the east and south of the river the population is mainly Hindu, and to the north and west the population is mainly Mohammedan. In the Kashmir Province itself, there is an overwhelming Mohammedan majority—a population of 1,800,000, of whom 110,000 are Hindus. Finally, there is the Poonch Jagir, a kingdom within a kingdom, in which again there is a formidable Mohammedan majority.

CONDITIONS IN 1920

What were the conditions in which these people were living in the 1920s and 1930s? The incidence of land tax was some three times that in the neighbouring Punjab. The slaughter of a cow was punishable by long terms of imprisonment. Silk, saffron, tobacco, and wine were all State monopolies. Arms licences were issued only to Hindus. There were many other such restrictions. Butchers, bakers, carpenters—everybody—were taxed up to the hilt, with never a return for their money in the form of a hospital, a road, or a school for all their patient slavery. Those conditions were mirrored faithfully in the appalling filth and squalor in and around the city of Srinagar, which could have been a kind of Venice in the east. It is easy to blame the Maharaja for such conditions; but it is only fair to him to remember that the Indian Political Department in general were content to let Indian Princes alone, on the principle of 'live and let live,' and only stepped in usually as a last resort when conditions within a State became such that further publicity could not be avoided. It is also only fair to judge the Maharaja by reference to other members of his order.

In 1930, there were grave riots. In particular, there was a clamour for agrarian reform and a greater percentage of Muslim representation in the State administration.

Sheikh Abdullah had just returned from his university studies in India, and he started to agitate for an increase in the Muslim representation in the State Government. I think that is interesting, because we know that later Abdullah became the champion of true secularism; and I think we ought to remember that that early championship of Muslims was not in any sense of communal bias, but was a genuine appreciation of injustice, as such. I think that, in order to be fair to Sheikh Abdullah, we must recognize that.

In 1931, there were serious riots and, in 1932, British troops had to be sent up to quell the riots. A Commission was set up and made certain recommendations, as a result of which a Legislature was established of 75 members, with an elected element of 33. It had no administrative powers, and was merely consultative.

In the meanwhile, Sheikh Abdullah had formed his political organization, the Muslim Conference, which was still charged with the main task of pressing for greater Muslim representation in the administration. From 1933 onwards, a few Hindus drifted into the Muslim Conference, and as time went on it became less Muslim-minded and more concerned with the political anomalies of government and the prevention of corruption in the State. So much was this so that, by 1939, Sheikh Abdullah broke away from the Muslim Conference, taking with him both Hindus and Muslims, to form his own National Conference in opposition both to the State Government and in a sense to the Muslim Conference. Whatever our doubts may be in regard to Sheikh Abdullah and his character, I think we have to recognize that in the setting up of a National Conference in Kashmir we note the first really effective and quite fearless attempt to cut across the two-nation theory and the idea of a theocratic State, whether Muslim or Hindu. We have to recognize that.

What about Abdullah himself? He was a nationalist, a left-wing Socialist, and a champion of secularism, and as such, of course, the great Muslim League in India never very much interested him, more particularly as the Muslim League itself was never much concerned with the welfare of the subjects of the States of the Indian Princes, a matter which closely concerned Abdullah. In those circumstances, it was quite natural that the original Muslim Conference in Kashmir should gradually drift into an association with the Muslim League way down in India.

I think that we should note that if at this stage it was possible to effect a Kashmir settlement of Kashmiris by Kashmiris and for Kashmiris, as represented by the Azad Government with its headquarters at Muzaffarabad and the Abdullah Government at Srinagar—a direct settlement between Kashmiris—it would but represent the coming together of two political units, the Muslim Conference and the National Conference, which had originally started life as one and had remained as one between 1933 and 1939.

I have stressed Abdullah's secular outlook and his left-wing Socialism, and it was that kind of outlook which threw him into close touch with the Indian National Congress in India. We find that at the same time as Abdullah's political activities were going on in Kashmir, he was also working as president of an organization in India known as the Indian States Peoples' Conference, which was concerned with the protection of the subjects in the States of the Indian Princes. Of course, this threw him into close contact with Pandit Nehru.

To emphasize the confused situation which existed at the time, I draw your attention to the circumstances that in 1946, when Sheikh Abdullah had launched a 'Quit Kashmir' campaign against the Maharaja, the Muslim Conference found

themselves forced into the curious position of opposing Abdullah in his demands for responsible government and actually championing the Maharaja's dynasty.

THE MODERN STORY

Now I come to the modern story. In 1947, you will remember, the Indian Princes were technically asked to sign instruments of accession, and by 15th August nearly all of them had signed the instruments; but in Kashmir the Maharaja lingered on in rather futile, but not unnatural, hesitation when one looks at the geography of Kashmir, with its common frontiers with both India and Pakistan. Lord Mountbatten went up in June and, in long conversations with the Maharaja, tried to persuade him to make up his mind, and he advocated that the Maharaja should make up his mind after taking a plebiscite in the country and finding out the desires of his people. Later, in August, Lord Ismay went up and tried to reinforce Lord Mountbatten's attack, but he found that whenever the conversation came round to such awkward questions as the political future of Kashmir, it was always skilfully redirected into reminiscences about polo!

I think we should accept the truth of that position. We should accept the truth of it in view of the fact that Pakistan has made accusations that there was some form of diabolical plot to stage the circumstances in which Kashmir's accession to India would have been enforced. If we accept the truth of that position, we have to deny that claim of Pakistan.

What I think we can say is true is that from the Spring of 1947 onwards there was a systematic persecution of Muslims in those areas of the State where they were not the hypnotized rabbits that they were in the Kashmir Valley. That apparently premeditated policy started in Poonch in the Spring, when Muslims refused to pay taxes, and State troops were sent in. It continued, and there was another manifestation of it when Muslims disobeyed a State order that they were not to celebrate Pakistan Day—which, of course, was on 15th August.

That policy continued at an increasing tempo, with an infiltration of members of the Indian National Army, the Akali Sikhs, and members of the fanatical R.S.S.—the Militant Hindu Movement—and it finally reached its culmination on 5th and 6th November, when a Muslim convoy leaving Jammu and promised a free passage to Pakistan was set upon by its own guards outside Jammu, and men, women, and children were slaughtered to the last living body.

THE TRIBAL INVASION

Meanwhile, the tribal invasion had burst into Kashmir, and indeed it was the direct legacy of that continued policy of persecution. I will now deal with the tribal invasion and its significance.

On 22nd October, about 2,000 tribesmen crossed the river and made their way up the valley. They attacked and massacred the nuns at the convent at Baramula, and by 26th October they were on the outskirts of Srinagar. One thing that they did achieve was to make up the Maharaja's mind for him. I should emphasize that in their passage they slaughtered both Hindus and Mohammedans quite indiscriminately, thereby confirming Sheikh Abdullah's hold and status in the Kashmir Valley. India's immediate reaction was to rush in troops to save Srinagar. Lord Mountbatten pointed out that such action would not be valid unless Kashmir had previously acceded to India. So Mr. Menon was sent up on 26th October, and returned the same day. I stressed previously that there was no plot; but at that stage, of course,

there was only one form of advice which Mr. Menon could give to the Maharaja, and that was to offer his accession and to retreat from Srinagar—advice which was certainly accepted with some alacrity with regard to the retreat.

What was the significance of this Kashmir tribal invasion? I have attempted to give a kind of objective story, and here there are many questions that are posed for consideration. First, who was responsible for it? What did it achieve? Could it have been prevented? Was it of value to Pakistan, and what is its significance in regard to the whole broad question of Indian-Pakistan relationships?

Who was responsible for it? My own view is that quite early in August, when the Kashmir State troops attempted to put down a blockade to prevent people from getting out of the State, certain Muslims from Poonch slipped through the blockade, swam the River Jhelum, and made across Pakistan to tribal territory, and there with hard cash purchased arms and ammunition from the tribal frontier factories. I think it is fair to say that the first seeds of tribal invasion of Kashmir were sown during those first contacts.

Who knew about the invasion and who was responsible for it? First of all, no British officer had any information about it at all. It was a deliberate policy of Pakistan to keep British officers ignorant in order to spare them subsequent embarrassment. My own view is that Mr. Jinnah heard of it and discreetly turned a deaf ear, and that probably was the attitude, to a lesser or greater degree, of his ministers. Finally, the chief minister of the Frontier Province not only knew of it, but gave it his support and blessing, without which it would not have been possible.

Could it have been prevented? Sir George Cunningham, the Governor of the Frontier Province, immediately asked the commander of the Peshawar Division to take effective steps to stop it. The answer was, first, that there were no formed units of the Pakistan Army and that the Army was in a state of transition; and, secondly, that Pakistani troops at this stage, if asked to quell a tribal invasion, would have laughed at their orders and gone off to join the enemy!

What was its value to Pakistan? The tribesmen were completely leaderless. There was a very unpleasant character called Kurshid Anwar who was responsible for the massacre at Baramula; and there was Brigadier Akbar Khan, a fearless leader who was organizing guerrilla bands and who was subsequently to be involved in the Rawalpindi case. There was a sprinkling of the Indian National Army. But, without real leadership, the tribal effort was from a military point of view very haphazard and quite ineffective. They very soon discovered that they could blackmail the Pakistan Army for arms, ammunition, and supplies. Once the lofty motive of a *jihad* had disappeared, there was left only the less lofty motive of stuffing lorries with loot and getting them back to tribal territory as quickly as possible. Finally, many of them burst into the western Punjab and proceeded to terrorize the population. And, of course, the effect of slaughtering both Hindus and Mohammedans was to confirm Sheikh Abdullah in his prestige and power in the Kashmir Valley.

I would say that on every count the tribal invasion of Kashmir by Pakistan was a complete disaster, and I think there are few Pakistanis who would deny that to-day.

As the Indian Army took control of the situation, they drove the tribesmen back, and as fresh tribesmen arrived and tried to find a free flank to the south, they were always met by further deployments of the Indian Army; and so the line shown on the map which I have displayed came to be stabilized, and thus it has remained for the last six years.

Before leaving the question of the tribal invasion I will say a few words on its wider significance in the whole problem of Kashmir. It was that invasion which led to the Indian action which led to the Maharaja's accession. The whole strength of the Indian case is based on a legal accession of Kashmir to India, and an act of aggression in the legal sense subsequently by the Pakistan Army—an aggression against a territory which had previously been ceded to India. The fact that the Maharaja who effected the accession had long since disappeared from the scene is forgotten.

THE ENTRY OF THE PAKISTAN REGULAR ARMY

We come then to the entry of the Pakistan Regular Army. What were the reasons for it? I think the reasons were two, and that they were perfectly good and valid reasons. Towards the end of 1947, Pakistan faced a situation in which India's Regular Army was deployed for a distance of some 400 miles along her frontier. That was a situation which a young State, struggling for its existence, could hardly welcome. India's intentions may have been perfectly innocuous, and almost certainly they were; but I think that at that stage and in those psychological conditions Pakistan was hardly able to appreciate that. Moreover, I think that Pakistan took the view that if India were allowed to advance and lap up that last token corner of Kashmir territory, there might be another 500,000 refugees into Pakistan to swell the numbers, some 400,000, which had already left Kashmir territory for Pakistan and the millions who had arrived from India.

The trouble about the deployment of the Pakistan Regular Army was that Pakistan did not admit it until too late. She admitted the use of her Regular Army late in August, I think, and she said that her Army had been used in May. In fact, I think there is reason to believe that small units of the Pakistan Regular Army, in an unofficial kind of way, were probably assisting the tribesmen and the Azad Kashmir forces which had been raised in the meanwhile as early as March. I cannot help thinking that if Pakistan had made full and frank admission as to the time when she used her Army and had given the reasons why, the subsequent course of negotiations would have been much smoother.

I ought to have mentioned before that as the tribesmen were driven back, the Azad forces came into action, men drawn largely from Poonch, where of course there was splendid material to draw upon—tough men knowing every inch of their own country, but not overwilling to serve very far away from their homes.

If Pakistan could say of the tribal effort "God save us from our friends"—as we ourselves have sometimes had to say—then equally the Azad effort might be regarded as having merely misled and puzzled the Indian Army as to the real strength of the opposition. I think that sums up, as I see it, the effect of all this irregular opposition.

THE INDO-PAKISTANI WAR

I have not time to dwell upon the extraordinary war that went on all through 1948 between India and Pakistan, whose Regular Armies were now deployed; but there is one feature of it to which I will draw attention. If you look at the map, you will see that, in order to feed her troops and keep them supplied, India had to build up a long and very vulnerable line of communication, building a new road up to Jammu; and if India were to fight the war only in Kashmir, without going on to Pakistan soil—which would have precipitated an inter-Dominion war—then she was at a great disadvantage in relation to Pakistan, who had only to choose her

point of attack from any one of many alternatives all along the frontier and had not to move her troops very far in doing so. It was an advantage to Pakistan rather like the advantage that the North Koreans have enjoyed in their knowledge of the immunity of Manchurian soil across the Yalu River. But it was a real advantage.

By September, 1948, Pakistan felt sufficiently strong to be able to effect a concentration, and she struck at the Indian communications in a big artillery battle and severed them. But it is Pakistan's claim that no battle was actually fought on Pakistan soil. The initial moves had to be made on Pakistan territory, but no guns were fired from and no actual operational order was given on Pakistan soil—that is the claim.

To complete the military story, of course the result of that battle was that General Bucher sent a telegram to General Gracey suggesting a cease-fire. The honours in regard to the cease-fire have usually been handed to the United Nations Commission, which had arrived in the country in August; but in fact it was General Bucher's telegram to General Gracey which effected the cease-fire. The reasons for it were obvious. If this war were to be continued, India's honour would have to be satisfied, and it could only have been satisfied by carrying the war on to Pakistan soil—and that was a situation which India was not in a position to support, with trouble in Hyderabad and other areas. So the telegram was sent.

Before leaving the military story I ought to draw attention to the situation in the Gurdaspur district. In the plan known as 'the 3rd June Plan', it was laid down that when this controversial frontier was settled, certain principles would be observed, the main principle being that districts with Mohammedan majorities would go to Pakistan and districts with Hindu majorities would go to India. Now, the Gurdaspur district had a Mohammedan majority, but for various reasons, it went to India; whereas had the recognized principle been observed, it would have gone to Pakistan. The effect of awarding this district to Pakistan would have been to deprive India of her railhead and would have made it almost impossible for India to support any force whatever in Kashmir. The Pakistanis are quick to remember that.

THE POLITICAL STORY

I will pass now to the political story. I draw attention immediately to one early development; and that was Mr. Jinnah's proposal that the two Governors-General should get together, take control, and operate the plebiscite themselves. Lord Mountbatten took the view that, whereas Mr. Jinnah could call on the maximum powers available under the Indian Independence Act, he (Lord Mountbatten) would not be given those powers by his own Government. I think that is true. I only draw attention to that early proposal because in my view it is not quite fair to Mr. Jinnah to dismiss his proposal as having been insincere or even frivolous, as has been done.

I referred to the United Nations Commission which arrived in the country in August, 1948. The representatives were from Argentina, Belgium, Czechoslovakia, Colombia, and the United States. There must have been Englishmen who were sad when they saw this concentration of international talent. Some of them were quite unacquainted with the basic problem of Muslims and Hindus, and some of them were probably unaware of the location of Kashmir on a map previous to their appointment. They came, they saw, and they certainly never looked like conquering; but they did leave behind one valuable legacy, and that was the United Nations Observer Corps, under the very able and balanced leadership of an Australian,

General Nimmo. On a Sunday morning about two years ago, I knocked up some of their representatives in Jammu where, true to the tradition of Sunday mornings of former times, I found them all fast asleep! Nevertheless, I would not have you for a moment underestimate the value of the United Nations Observer Corps. Apart from furnishing the Security Council with fortnightly reports and keeping clear a cease-fire area some 500 yards on either side of the cease-fire line, they are able to smooth out a whole lot of squabbles and local quarrels in an unofficial way very effectively. Even in these days of surprises, a goat or a sheep is not very much concerned with a red line on a map, and the owner of the goat or sheep is therefore rather more concerned with his ownership than with the political problems of Kashmir. In ways of this sort the United Nations Observer Corps has been very useful.

After the United Nations Commission, General Macnaughton of the Security Council came and went; Sir Owen Dixon came and went; rather belatedly the Commonwealth Prime Ministers took a hand in it in London; and finally Dr. Graham made a sincere effort over a period, which was covered in a series of four reports. (Dr. Graham's efforts rather reminded me somewhat of the opera star's persistence in having farewell performances.)

THE EMERGENCE OF A PLAN

I think I can sum up the effect of all these sincere but ineffectual efforts in the following way. The United Nations did also leave behind two resolutions, dated 13th August, 1948, and 5th January, 1949. From those two resolutions there emerged over the subsequent years, through all those efforts, a plan by which the troops on either side of the cease-fire line should be withdrawn; there was to be a withdrawal of all but 4,000 of the Pakistanis, and in the case of India the 'bulk' of the troops were to be withdrawn. That was the kind of plan which both sides accepted.

But when it came to the implementation of that plan, there has been a situation in which proposal after proposal has been put up in a kind of game of international skittles, for India to knock down. The issue on which the negotiations always flounder is the number of troops to be left behind. When the question arose of defining 'the bulk of the troops' who were to be withdrawn on the Indian side, it was discovered that India wished 28,000 troops to be left behind. Later this was reduced to 21,000 troops, together with a very effective State Militia which Abdullah had raised. There were all sorts of other bones of contention. For instance, there was the question of what was meant by the disposal of the troops by the plebiscite administrator. India took it to mean putting them into barracks; Pakistan took it to mean their complete disbandment.

It seems to me that troops are needed in Kashmir during the plebiscite, not for the purposes of the plebiscite but only as a kind of insurance against another aggressive action by Pakistan. I think it was with that in mind that the Commonwealth Prime Ministers put forward three proposals.

The first was that the Commonwealth itself should step in and should pay for and maintain a Commonwealth force in the country. The second was that there should be a joint Indo-Pakistani force, a kind of resuscitation temporarily of the Indian Army on a small scale, possibly under the command of British officers again. The third was that the plebiscite administrator, on his arrival, should be allowed to raise his own force as he liked within the country. All three of those proposals were refused by India.

It seemed to me that one fourth proposal might have received consideration. Pakistan has accepted all those three proposals. Would Pakistan be prepared to go to the length of accepting troops on her soil, and on her soil only, if in return for what might be regarded as an insult India would withdraw all her troops from the State? That kind of solution possibly might have received more attention.

THE POSSIBILITY OF PARTITION

Let us now turn away from the accepted pattern and look at quite another approach. When Sir Owen Dixon took up his orders, he was empowered to explore other means 'at variance' with the accepted plan; and it was clear that those who briefed him had in mind some form of partition. There are certain areas where the intentions of the people are clear. The Buddhists have said that if Kashmir as a whole were to pass to Pakistan, they will throw in their hand and revive their ancient ties with Lhasa. The same applies in Gilgit in the north. Nor is India or Pakistan really going to challenge the situation where the views of the people are already known. So what are we or Pakistan or India arguing about? Only the central valley, this heart and core of the situation. Well might one call it the Valley of Indecision. Could not a limited plebiscite be held in that valley only?

Unfortunately, one has only to put up such a logical proposal to have it knocked down again, for if there is one point on which both India and Pakistan do agree, it is their insistence in treating Kashmir, a mere geographical expression, as one political whole.

A KASHMIRI SETTLEMENT

What of the other possibility—a settlement of Kashmiris by Kashmiris and for Kashmiris? Once again, the logic has to be destroyed; because Abdullah, who might have made some kind of approach to the Azad Government, was all along talking in terms of "Free my brethren who are in chains of slavery on the other side"—and that is not very encouraging language to use for a Kashmiri kind of settlement. Nor is it any more likely now that Abdullah has passed away and Bakshi Ghulam Mohammed has taken his place; because all the indications are that he is a complete 'yes-man' as regards taking his orders from India.

There is, of course, the danger that if it were possible to stage talks between the two Kashmir elements, the State would all the time simultaneously be subjected to the same kind of outside interference as the Sudan was by Egypt during the recent elections.

We hear speculation as to how a vote taken in that valley would go today. I would have said that in Abdullah's time it would almost certainly have gone in his favour. Apart from the effect of the tribal invasion, Abdullah had a habit of dispossessing landlords and distributing their land without giving them compensation. You cannot do that sort of thing without gaining a lot of popularity. He had a high sense of publicity and operated a State broadcasting system, to great effect. I think that probably a vote would have gone in favour of Abdullah. As to how it would go today, I would not like to say. It would depend upon whether any opportunity would be given over a period for the Kashmiris to be subjected to equal political and electioneering pressure by both sides before the plebiscite was held.

The view has been expressed that neither side really wants a plebiscite and that time may prove the great healer, driving these frustrations inward in some kind of face-saving process. I believe that of India, but I doubt whether I can believe it in the case of Pakistan; because the difference that I noted was that whereas, with

regard to this hypothetical war, the Indians were inclined to say "It *cannot* happen," a few Pakistanis were inclined to say that "it *must* happen." There was the difference.

At this moment, of course, there is a certain amount of hope in that the two Prime Ministers have met and have agreed upon the date of the induction of a plebiscite administrator, in April of this year. Personally (and I am stating my own view only) it seems to me that, while the intervening problem of the numbers of troops to be withdrawn is not solved, to speak of a plebiscite administrator arriving in April is just wishful thinking. I can only hope that I am wrong.

I said at the beginning that there are many trees in this particular wood. I have mentioned all sorts of corners to it. I have not mentioned the young Yuvraj, who is now officially the head of the State. I have not mentioned the economic ties with Pakistan. I have not mentioned the effect of a militant Hindu movement at Jammu, determined to place Srinagar under Jammu's domination rather than Jammu under Srinagar's domination. I have not mentioned the fact that the President of the Kashmir Assembly is a Communist.

THE IMPLICATIONS OF UNITED STATES AID TO PAKISTAN

There are all those issues, each one of which could call for another ten minutes consideration. But I ought, perhaps, finally to refer to this matter of Pakistan accepting United States aid and its effect in relation to the Kashmir problem. I think that the first mention of this kind of thing in public was made two years ago, when Mr. Malik, the Soviet Representative at the United Nations, spoke of Kashmir being used as an air base for the Americans. I will say this, that whereas we, thinking as we do in the West in terms of realism, are grateful that Pakistan also appears to think in the same way, at the same time there would be some validity to the Indian objections if Pakistan were to accept American aid and use it to improve her position in Kashmir, having accepted it for an international purpose.

I said that there is no obvious solution, and I am leaving the problem unanswered. I think the Indian case will appeal to all those who regard the secularist approach as an advance in terms of the flow of world thought generally, an advance compared with the approach of those who tend to encourage political decisions against a religious background. And yet I find also force in the rather subtle argument of a prominent Hindu in Delhi, who quite fearlessly says that if India's claim to champion the secular outlook is genuine, and if it be wrong for Pakistan to take Kashmir, then surely in a true democracy a true democrat is equally entitled to make his wrong choice as he is a right one.

DISCUSSION

LIEUT.-COLONEL S. F. HARVEY WILLIAMS: I should be glad if the lecturer could tell us a little bit more about the background of why Abdullah eventually fell down.

THE LECTURER: I think it was because he made the same mistake as the Maharaja and was working for a completely independent Kashmir. He signed an eight-point treaty with India, which is valid today. Nominally, under the terms of it, the accession was only for the purposes of defence, communications, and external relations. It is quite obvious that Abdullah signed that treaty reluctantly, and that he was all the time working for complete independence.

Another thing is that some of his schemes were going wrong. The Co-operative movement, which was being developed on very socialist lines, was falling down; corruption had crept into it, and a big black market had grown up.

SQUADRON LEADER S. CURSETJEE : I should like to ask the lecturer kindly to tell me what, in his opinion, is the best solution to ease this tension and bring peace on both sides. I should like also to ask whether he thinks that a division of Kashmir would answer the problem or whether it would further aggravate the present position.

THE LECTURER : With regard to the first question, if India abides by the terms of the Security Council, she should in the last resort be prepared to face international arbitration on this matter. If I were an arbitrator, I would divide the country, except for the central valley ; and I would put an international force there and take a plebiscite under international auspices in the central valley, after having allowed a period of six months or so for the situation to simmer down, for the Kashmiris to think again, and for both sides to have opportunities to advocate their case. That is what I say should happen. Whether it is going to happen, goodness knows. I think probably that is the last thing that will happen ! I think the more likely solution is that the cease-fire line will come in time to be regarded as the final line.

As for the second question, I think that I have already replied to it in answering the first question.

BRIGADIER H. W. WYNTER : Could the lecturer tell us what the position is in Baltistan ?

THE LECTURER : We know that the Chinese are setting great store in developing a sense of Sinkiang independence. As I understand it, Sinkiang is built up as a sort of autonomous area, which is something analogous to a republic in the U.S.S.R. It is being strengthened economically and roads are being made. I would say that the situation is very dangerous in a way, because the opportunities for agents to infiltrate across Baltistan are so obvious. They cannot possibly be stopped coming in. With the present left-wing tendencies in Srinagar—bearing in mind that there are two or three really honest-to-God (if one can call them that) Communists in Srinagar—I think it is a dangerous situation.

I am afraid that I do not know exactly what is happening in Baltistan. As for Ladakh, they are, in Srinagar, flattering the Buddhists very much. The Lama Bakula has been sent for and he sits in the Srinagar Assembly as the representative of the Buddhists, to whom a good many concessions have been extended.

SQUADRON LEADER S. CURSETJEE : May I ask another question ? What is the prospect of a plebiscite, and would that finally decide the question ?

THE LECTURER : A plebiscite is the declared intention of both sides. India has said, and has repeated over and over again, that she does accept the holding of a plebiscite ; but it is very difficult to reconcile that with statements made in Kashmir by the Kashmir Government. It is quite clear from the last statement that Bakshi Ghulam Mohammed made about the intentions of his Government that he regards the accession to India as a *fait accompli* not to be changed. Nobody yet has quite sorted out that apparent contradiction between the Kashmir Government's declared intentions and the Indian Government's declared intentions.

THE CHAIRMAN : I am sure that all of you would like me to thank Lord Birdwood very much for his talk. It has been quite clear in listening to him that we have been listening to somebody who is a complete master of his subject, and who has studied the situation in great depth and detail. It has been a privilege and pleasure to us to listen to him, and his talk will be a great help to us in the future when we read or think about this very difficult subject.

I should like to thank him very much on your behalf for the great trouble he has taken and the great interest he has given to all of us in this very difficult problem. (Applause.)

ARMOUR IN THE LAND BATTLE

By MAJOR-GENERAL H. E. PYMAN, C.B., C.B.E., D.S.O.

On Wednesday, 10th February, 1954, at 3 p.m.

MAJOR-GENERAL L. O. LYNE, C.B., D.S.O., in the Chair

THE CHAIRMAN: First of all I have an apology from General Sir John Crocker who would have taken the Chair. Unfortunately, he has gone down with a seasonable bout of influenza, so I am deputizing for him.

We have with us to-day General Pyman to talk about armour in land warfare. I do not think you could have anybody better qualified. General Pyman has not only commanded armour in peace and war, and is now commanding the 11th Armoured Division in B.A.O.R., but he has also been on the staff side directing it. But what is equally important and more rare is the fact that he has been at the Ministry of Supply dealing with all the technical problems in connection with the design and production of tanks.

General Pyman tells me that he will divide his talk into two parts. First of all he will give a short historical survey and then he will deal with armour to-day and to-morrow against the background of the world in which we live, with the possibility of atomic warfare and all that that means.

LECTURE

THE principle that an army must contain a mobile element as well as a more static element is as old as the history of war. The primary roles of the mobile element are to dominate opposing mobile forces; in the offensive to bring about or complete the destruction of the enemy; in the defensive to delay and disrupt an advancing enemy, and to counter-attack him when he assaults main defensive positions. Offensive spirit is always the first requisite of a mobile force. These are fundamentals with which I trust you will all agree.

This afternoon, I propose, first, to illustrate the principle and roles I have just mentioned by reminding you of some of the famous actions of mobile forces in the last two world wars; then, with some trepidation, I will give you my views as to how the advent of new weapons, in particular the atomic missile, will affect the use of mobile troops in the future; and, finally, I will suggest certain changes in our organization and equipment which will enable mobile forces to take full advantage of the much more powerful supporting weapons we shall have at our disposal.

HISTORY

As a first historical illustration may I remind you about Megiddo, fought in September, 1918.

The Eighth and Seventh Turkish Armies were ranged against the XXI and XX British Corps on a 40-mile front. Arab forces were containing the Turkish Fourth Army east of the River Jordan. Our cavalry were in reserve. Allenby had a small overall superiority, but was greatly superior in cavalry and guns. His plan was simple and bold; it depended upon surprise, speed, and perfect timing. He decided to contain the Fourth and Seventh Turkish Armies, swiftly to break through their Eighth Army near the coast, and then to pass the cavalry through to seize the Turkish supply and escape routes at El Afule and Beisan some 50 miles in rear of the front line.

He did it, and did it in remarkably fast time. Within 24 hours our infantry had broken through the Turkish defences and our cavalry were through the gap and 50 miles in rear of and across the enemy's lines of communication: one cavalry

division covered 70 miles in 34 hours. The Turks got no time to regain control or to plug the gap. The Seventh and Eighth Armies were annihilated.

I chose this classic example of mobility because it provided the perfect curtain for a great arm, British and Imperial horsed cavalry. And it happened only six weeks after tanks in France on 8th August had demonstrated that on the European battlefield they were sufficiently mature to take over from the horse as the agent of the mobile arm. Had the war gone on to unfold the ambitious armoured plan prepared for 1919, the point would have been proved beyond all doubt. But peace returned and the 1919 plan, which had been conceived by a group of brilliant officers inspired by a great faith in the tank, was not required. Their work however continued. We may argue today that the armoured division was the natural successor to the cavalry division. We may argue that the Englishmen who, as Guderian admits, originally inspired him with the conception of handling armour (that later led to the downfall of Poland and France and to the crippling of Russia), were merely assigning to the tank its correct mobile function. But if we left it like that we would be extremely ungracious and ungrateful to a fine team of original thinkers. I purposely pay tribute to them as a team and so avoid invidious discrimination. That our own Country did not make full use of their new ideas is beyond the scope of my talk, but it in no way detracts from the brilliance of conceptions which time and time again led to great victories throughout the 1939-45 War.

I would like now to examine some of these victories and consider in some detail the part armour played in them.

In May, 1940, Guderian's XIX Army Corps—an armoured corps—was of itself largely responsible for Germany's first dramatic victory in the west. I shall quote to you Guderian's own words to his soldiers at the time:—

“For seventeen days we have been fighting in Belgium and France. We have covered 400 miles since crossing the Belgian frontier. You have thrust through the Belgian fortifications, forced a passage of the River Meuse, broken the Maginot Line extension in the memorable battle of Sedan, captured the heights at Stonne, and then, without halt, fought your way through St. Quentin and Peronne to the lower Somme at Amiens and Abbeville. You have set the crown on your achievements by the capture of the Channel coast and the sea fortresses of Boulogne and Calais.”

It was a fair description of what happened though he should have added—as he does in his detailed account—that throughout he had been superbly supported by a mass of dive bombers. It was a great achievement. Three spirited armoured divisions, brilliantly commanded and boldly led, virtually won a great campaign in seventeen days. In parentheses, I am proud to record that an audacious counter-stroke by the 4th and 7th Royal Tank Regiments from Arras towards Cambrai, gave the Germans, in von Rundstedt's opinion, the most critical moment of the campaign.

In Wavell's desert campaign of 1940, our 7th Armoured Division made a significant contribution.

In December, 1940, the Italians had a quarter of a million troops in the desert; their foremost troops had reached Sidi Barrani. Wavell, outnumbered by something like ten to one, decided to take the offensive. First, he attacked Sidi Barrani with the 4th Indian Division and the 7th Royal Tank Regiment, and passed the 7th Armoured Division round the south to cut the Italian communications. With the 6th Australian Division taking the place of the 4th Indian Division, he repeated the same tactics at Bardia. In both actions he had great success. His administrative

resources were now hard pressed. He knew that once he moved over the frontier towards Tobruk he would have to go right across Cyrenaica. Wavell decided to go on. He directed the 6th Australian Division towards Tobruk and the 7th Armoured Division to Mechili. After Tobruk fell and the enemy began to withdraw from Derna, he directed the 7th Armoured Division to the coast south of Benghazi. So the 7th Armoured Division performed its first historic ride, and in 29 hours crossed 150 miles of desert over ground that was atrociously bad and virtually uncharted. It got behind the remains of the Italian Army and at Beda Fomm completed the destruction of the Italian armour. Throughout, it was given splendid support by a numerically inferior air force.

This was a real triumph for mobility and boldness; the enemy mobile troops were utterly destroyed. Cyrenaica and 130,000 prisoners were captured; our own casualties were a few hundreds. The fighting strength of Wavell's army was never greater than 30,000.

Armoured troops, of which Guderian's Group was probably the most distinguished, played a big part in Germany's invasion of Russia in 1941.

Guderian was in command of the Southern Armoured Group of the Central Group of Armies. His Group consisted of XXIV, XLVI, and XLVII Armoured Corps. His task was to cross the River Bug on either side of Brest-Litovsk, break through the Russian defences, and advance to the area Roslavl-Elnya-Smolensk. Before Russia had recovered from the shock of unexpected invasion, Guderian had already driven his armour about 300 miles in less than a week up to and beyond the River Beresina. As he approached the River Dnieper in early July, his XLVII Corps was engaged in a major tank battle at Senno and his XXIV Corps in the south was facing Rogachev. The Dnieper is a formidable river. On his sector the Russians held strong bridgeheads at Rogachev, Mogilev, and Orsha. Heavy Russian reinforcements were known to be approaching from the east and south. The infantry army following his armoured group was 14 days behind. Guderian must have been tempted, as he was virtually ordered, to turn north and complete the destruction of a large Russian force in the Bialystok pocket. Grasping the importance of speed and the value of deep penetration, he went straight for the river and his final objective. He ordered XXIV Corps to capture Roslavl and protect the south flank. He directed XLVI Corps upon Elnya and XLVII Corps upon Smolensk, operating south of the River Dnieper and thereby protecting its north flank. The river was crossed with light casualties on 10th and 11th July. Smolensk was captured six days later, after a great tank battle had raged for several days, and resistance had ceased at Roslavl by 1st August.

Russian forces were growing rapidly in strength and in stability, but there seems little doubt that had the full energies of the German army groups now been devoted to the capture of Moscow, that city would have fallen before the Winter. Hitler discarded the opportunity armour gave him.

The battle of Alem El Halfa, fought just before Alamein, is interesting because armoured thrust was beaten by armoured manœuvre combined with air support. XXX Corps held the British north, XIII Corps the centre and south, and the 10th Armoured Division was in reserve. XIII Corps had its main pivot, the 44th Infantry Division, on the important feature of Alem El Halfa, and held the south with an armoured screen provided by the 7th Armoured Division. The Italians did a frontal attack and the German Afrika Corps swung round the British south with a main thrust directed north-east. Montgomery appreciated that as long as he manoeuvred

his armour adroitly, Rommel could not get far without first assaulting Alem El Halfa. Once Rommel showed his point of main effort, Montgomery let the 7th Armoured Division fall back in front of it towards Alem El Halfa and the south. He then moved the 10th Armoured Division on to the south-west slopes of Alem El Halfa to link up with the 22nd Armoured Brigade, and challenged Rommel to attack. Before this weight of armour Rommel hesitated and, in the period of his hesitation, the Royal Air Force and our artillery completely disrupted his attacking force. Rommel was compelled to withdraw.

From Alamein until the end of the campaign in Africa, armour supported by tactical air forces played a major part in all the desert battles where terrain on the whole was so suitable for mobile operations.

Turning again to the eastern theatre, Stalingrad was perhaps for the Germans the beginning of the end. The Russian steam roller, spearheaded by tanks with masses of infantry, abundant artillery, and close air support, began its inexorable move westwards. At first the Germans countered with armoured counter-attacks, but very soon Hitler decreed that every yard of ground should be held to the last. Flexible and mobile defence alone might have saved the Germans, as was brilliantly demonstrated by von Manstein in the operations which led, at great cost to the advancing Russians, to the German recapture of Kharkov in March, 1943. But fortunately for his enemies, mobile defence meant nothing to Hitler.

In the early days of the Normandy landings it was our special armour—D.D. tanks, A.V.R.E., flame-throwers and flails, and the like—that played armour's principal part. It was not until we had broken out of the Bocage and the bridgehead in August that armour got going again in its true mobile role. On the south flank of the Allied thrust through France, Patton's drives captured the imagination of the world; XXX British Armoured Corps's thrust from the River Seine to Brussels and Antwerp, over 250 miles in six days, was also a great performance. It finally prevented any idea of a German stand in northern France or Belgium. It resulted in the capture of some 40,000 prisoners and much irreplaceable equipment, it gained rapidly for the Allied cause the political advantages of a capital city, and it virtually bounced the great port of Antwerp before the Germans had put any demolitions into effect.

By Spring, 1945, the Russians were ready to cross the River Oder and the Western Allies the River Rhine and, as German resistance finally faded, thousands of tanks roared towards their final objectives. On the British Second Army front alone well over a thousand tanks were in the van.

So much for examples of the part that armour played in the land battle—or more correctly, the land/air battle—in the 1939–45 War. Its effectiveness always depended upon speed of action and intrepid leadership. Once it hesitated or came against set piece defences it got bogged down and it took masses of infantry, close support tanks, artillery, and air support to unbog it—then, if the leadership was right, off it would go into mobile conditions again. Air support was always invaluable, and the more intimate it was the better were the results. As the war went on, both sides learned to curb armour with anti-tank gun screens, but, except in the Far East, armour and its threat never ceased to be the principal factor in any plan. It always presented to the defence the threat of a major defeat. It always offered to the attack opportunities for a great victory; that is, provided it was correctly launched, properly supported, and boldly led.

ARMoured TACTICS OF THE FUTURE

I come now to the second part of my lecture and would like to suggest how the armoured battle will develop in an atomic age, in which armies as we know them will still be able to assemble for battle. Please remember that all I say from now onwards is my own view. I shall consider the development of the tactics, organization, and equipment of armoured forces.

In the air/land battle, and that in future will be the better expression, the principle that an army must contain a mobile as well as a more static element will remain constant, though armies as a whole will have to concentrate more quickly in time and less thickly in space. The principles of war will remain, substantially unchanged, though their application will be different, and the mobile arm will still retain its characteristic roles in the offensive and defensive.

May I use the word "atomics" to describe atomic weapons? It seems that in general, atomics will be able to arrive at their targets in one of three ways; in a bomb from an aircraft, borne by a rocket, or shot from a gun. Incidentally, since the 1939-45 War, air forces have devised other means than atomic bombs of inflicting very heavy casualties upon concentrations of land forces by day and by night. But the particular point that I am trying to bring out now—and it is a most important one—is that the old benefits that armies derived from air superiority as we knew it in the 1939-45 War, are disappearing. In future, whenever any threat from atomics exists, massed concentrations of land forces such as we mustered on the west bank of the Rhine would be foolhardy—however effective they were at the time. Likewise, defensive dispositions such as the Germans adopted at Alamein, or we did at Alem El Halfa, would be most susceptible to atomic attack. We must accept that against atomic threats we shall have to moderate our concentrations or control our dispersions. It is interesting to remember that as long ago as 1772, Count de Guibert, whose student Napoleon was, propounded upon controlled dispersions and lightning concentrations, for a different reason—to minimize administrative complications.

In offensive operations, atomics of themselves may not be able to make the gap for the mobile troops. But they will be able to do a great deal to help in the creation of that gap, provided that immediate advantage is taken of the damage and confusion caused.

Starting on the assumption that a gap has been created either by atomics alone or by atomics supporting other land forces including tanks, or else that an open flank has been found, the method by which armoured formations will be used in offensive actions might be after this pattern:—

(a) There will be no orthodox concentration of armoured forces in space and time behind start lines. They will lie hidden up in controlled dispersions in battle groups.

(b) When the time to move comes, battle groups will be very carefully timed to move from dispersed assembly areas, past start lines, and straight through gaps to meet for the first time as a concentrated whole upon their main objectives which may be many miles away. This will call for superb timing.

(c) Objectives must still be chosen so that they compel the enemy to react to protect or regain them and, by his reaction, to unbalance himself.

(d) The hope will then be that the enemy, as he reacts, will present opportunities for the armoured forces to carry out ripostes with suitable elements. If

the enemy makes the mistake of concentrating too heavily in space as he reacts, our reply might be atomic, followed by a rapid armoured attack.

I would now like to give you my ideas about defensive operations because they are particularly encouraging. It seems that not only have armour and air forces a special affinity, but also armour and atomics. Consider a normal defensive battle front with some form of obstacle in front of it, perhaps a river, or a mountain range, or a swamp, or a forest. Assume, and be safe in assuming, that you will not have enough soldiers to defend the whole area in strength. There will be strong points and there will be areas that are only screened by light mobile forces. Perhaps we might consider an army composed of three armoured and four infantry divisions, in such a situation. Let us have the infantry divisions in firm localities with plenty of anti-tank weapons and ammunition. Behind the infantry, who will have local armoured support, let us put three armoured divisions out of range of the bulk of the enemy artillery. Two of them will be deployed each behind two infantry divisions. I mean deployed, so that they will avoid becoming atomic targets before the enemy assault begins. Further back and again deployed will be the third armoured division.

Eventually the enemy will attack and, for the purposes of my argument, eventually he will obtain a penetration. The breadth of his penetration will be restricted by the frontage he can attack, and by his inability to dislodge elements of our static defence. Immediately his penetration begins to show its direction getting through the depth of the static defence, it must be brought to a halt. One of the two armoured divisions deployed at the back must counter the penetration, and must seal the enemy spearhead in, wherever he goes. Armoured divisions are well designed for such a role. They have mobility and tremendous fire power, and both of these they must use to the utmost. Once the enemy is thwarted in this manner, he will have to bring up reserves. He will probably have to move a proportion of his guns and other heavy equipment over the original obstacle in front of the defence. He will, unless I am mistaken, be greatly tempted to concentrate in space to obtain success. As the opposing army commander that would be my precise aim—to make the enemy concentrate in space. When he does, I shall ask for atomic assistance. Provided that my armoured division, which no doubt will be stretched almost to the point of limit, can hold the enemy thrust with the assistance of parts of the infantry divisions which are still firm on their ground, then the battle must turn to my advantage. I have produced an atomic target and, moreover, I have remaining one and possibly two armoured divisions to exploit the situation which the atomics will create, by destroying completely what remains of the attacking force. It is interesting to consider how close Alem El Halfa was to this technique: though Montgomery did not go in to kill at the end for reasons we know.

FUTURE ORGANIZATION AND EQUIPMENT

Those are my ideas about how armoured forces, as the mobile element, will operate in the atomic tactical battle. I would now like to consider how we should develop the armoured division in organization and equipment, so that, as atomic tactics pass from theory to fact, the armoured division will keep step with the evolution.

Armoured divisions take too long and are too road-bound in the process of reconnaissance. The main echelons of reconnaissance, namely the armoured car regiment, the reconnaissance troops of armoured regiments, and the scout platoons of motor battalions must learn to reconnoitre with greater speed and ubiquity. Their

future equipments must be designed to that end. Proceeding with our search after speed, I would like to see more efficient wireless communications. Our engineers, too, will have to increase their speed at bridging rivers and other obstacles. I would like to see much greater medium machine gun power within the division.

In order to reduce ourselves as an atomic target, we must cut down the number of administrative vehicles drastically.

There are too many members and vehicles of R.E.M.E. in the armoured division. Recently, our whole policy in vehicle development has been to seek for reliability and standardization. We have had a measure of success. In exploitation of that success, and remembering restrictions upon road movement, R.E.M.E. personnel within armoured divisions should be eventually limited to L.A.Ds. and one recovery company. Our real need for workshop effort is immediately before and immediately after major engagements, and that effort can be produced by semi-static workshops outside divisional control.

We carry too much tank ammunition within an armoured division. Great strides have been made in the accuracy of tank gunnery since the end of the 1939-45 War. In considering armour-piercing shot, as a rough calculation it took seven rounds in the 1939-45 War to hit an enemy tank in a tank *versus* tank encounter. Any gunner who takes three shots to deal with his target today has nothing to be proud of at all. An armoured division carries 15,000 rounds of armour-piercing shot in first and second lines. Theoretically—very theoretically—that means that it can fire all that ammunition within 24 hours and in that time should destroy 5,000 tanks. If in any 24 hours my division could destroy one tenth of that figure I would die a happy man.

As tank guns get bigger the nature of their ammunition and its carriage becomes a matter of growing concern. The subject requires constant study by designers and users alike.

To sum up on this administrative point, I am convinced that if we ourselves do not streamline our echelons, then an enemy would soon do it for us. So we might just as well accept the inevitable. One hopes that helicopters might be able to help supply echelons in the future.

Regarding personnel, armoured divisions could get to a much higher state of training if all National Service men could drive a vehicle or work a wireless set and fire a basic weapon when they started their two years' Regular service at 18 years of age. One year's cadet service based upon T.A. units and their homes might make such a scheme practicable.

Turning now to the vehicles which carry the fighting troops. At present it takes about 100 road-borne lorries to carry the lorried brigade. We will be forced more and more to forsake roads to obtain flexibility and to avoid casualties. Lorried brigades would be better suited for the future if they were to depend upon unit transport, one squadron of about 50 really good cross-country A.P.Cs. (i.e., one battalion lift), rides on tanks, and last, but not least, upon 'shanks's ponies.'

It is from the tanks that the armoured division must derive its power and much of its speed, albeit the infantry have a vital part to play. Such is the accuracy of anti-tank gunnery today, either from anti-tank weapons or from other tanks, that armour of itself on a tank—except upon very heavy tanks—affords only a modicum of protection. People who imagine that because of that the day of the tank is passing, just do not understand tank tactics. The tank, like the skilled boxer, has a hundred

methods of avoiding a direct hit on the chin and of yet knocking his opponent out. The inter-play of fire support between tank sub-units, protection afforded by covered lines of approach, the devastating charge of stabilized tanks firing with accuracy, the skilful use of smoke, and the development of night fighting are all means by which the tank can still achieve its object. But future tanks must be fast, extremely hard hitting, and small. After discussing future tank designs with expert designers, leading industrial engineers, and motor manufacturers, I am confident that future tanks can still be more powerful and faster, without becoming any heavier and probably becoming lighter.

In the defensive battle which I depicted, self-propelled anti-tank guns have a big role to fulfil. Time and time again they will be hard pressed in their endeavour to seal in an enemy who is attempting to break out. For that type of anti-tank gun first priority should again be upon fire power, with second upon protection and last, mobility. How often, when the German was on the defensive, did the odd 88, either as a dug-in or as a self-propelled gun, hold us up? How often did we have to incur very heavy casualties to break up an anti-tank gun line which, in fact, was very lightly held if numbers are the basis of calculation, but very heavily held if fire power is the calculation.

INTER-SERVICE COLLABORATION

I approach my next and final point with trepidation, but no serious attempt to predict the future can be completed without reference to it. I defined atomics earlier as atomic bombs, rockets with atomic warheads, or atomic shells fired by artillery. I trust that I have shown that the action of these atomics and the action of armoured divisions are very intimately related. Superb planning will be essential if best results are to be obtained; further, bad planning may easily lead to disaster.

If the atomic or atomics which the armoured divisional commander is ordered to exploit are ground based, then through corps or army he will get full opportunity to influence the plan so that he will fight his battle to best advantage, but if the atomic is an atomic bomb, then it is more difficult.

It is an established fact that association of military and air force headquarters lower than Army-R.A.F. Group Headquarters level is not practical. Lower than that the land battle is too local and the air space above it too restricted for the R.A.F. Nevertheless, when armoured divisions are exploiting an atomic bomb they will often be operating to split seconds and without much other support. Fullest consideration will have to be given to the armoured divisional commander's requirements from the start of the air/land plan, especially as to where and when the bomb is to be dropped.

CONCLUSION

To conclude my brief review, I have endeavoured to show that speed, boldness, and offensive action were, and must remain, the first characteristics of a mobile force. Throughout the history of war there have been different forms of mobile forces and different ways of acquiring that speed. At Megiddo it was the horse, and in the early part of the 1939-45 War the speed of the tank had a devastating effect upon armies which were rated the greatest in Europe. As the 1939-45 War progressed, methods were found to curb the speed of armour.

Now if, in future, atomics will be able virtually to shatter sectors of defensive systems to a considerable depth *in an instant*, then armour, now capable of firing with accuracy on the move, will be able to pass with speed through those gaps and enjoy

mobile conditions. In addition, on the defensive, armour is an excellent agent to compel hostile armies to concentrate to their own destruction—to concentrate to form atomic targets. Armour supported by atomics and atomics exploited by armour present a new means of ensuring true mobility on the battlefield in both offensive and defensive operations.

DISCUSSION

THE CHAIRMAN: You will all appreciate that General Pyman has come very recently from the Ministry of Supply and he therefore knows all the answers or all the official answers. It may be that if you press him hard on technical subjects he will have to take avoiding action, otherwise he tells me that he is prepared to discuss as fully as possible any points which anyone may care to raise.

LIEUT.-GENERAL SIR GIFFARD MARTEL: First of all I should like to congratulate the lecturer on giving what I should say is the best lecture I have ever heard on armoured forces, and I have heard a good many and have given a good many. In spite of the brilliance of his lecture, there are one or two points which I should like to raise on which perhaps I did not quite understand our lecturer.

First of all when dealing with the use of the armoured division to delay the enemy advance, General Pyman rather suggested using it frontally to stop the enemy advancing. I am wondering whether that was introduced because in many plans and exercises in Germany divisions have been used in that way. I wondered whether that did not date back to the time just after the war when we disbanded the armoured divisions. After what our lecturer said about the importance of mobility, why should armoured divisions not go behind the enemy rather than face him frontally?

The lecturer also said that the tanks used in the mobile role might in the future be heavier, faster, and more powerful, but of course straight away that increases the tail with regard to the amount of petrol, oil, and so on, and I wondered what he had in mind when he said that.

THE LECTURER: May I take the second point first. Perhaps I did not say what I meant to say. What I meant to say was that after discussing future tank designs with engineers and motor manufacturers I am confident that future tanks can still be more powerful and faster without becoming any heavier, and probably becoming lighter.

With regard to the other point, when I was giving my two descriptions—most inadequately I am sure—of how we do these things, I was dealing with the defensive role as opposed to the delaying one. I was visualizing an enemy attack as opposed to an advance. Please do not think that I have no ideas about getting armoured divisions behind an advancing enemy. I believe in it because it gets you away from being bogged down by a set piece defence.

MAJOR-GENERAL N. W. DUNCAN: The lecturer spoke of armoured car regiments and the need for rapid reconnaissance. He also referred to present road-bound limitations. Is he thinking of some different equipment for these units, or does he think they are unsuitable for the job? Do they require any additional armament?

Secondly, I should like to have the lecturer's views on the question of releasing armoured divisions to split second timing in order to take full advantage of any atomic effect which has been produced, particularly remembering the congestion which obtained in France in the last war.

THE LECTURER: With regard to the first point, I am glad that this question of the armoured car regiment has come up. I think that the first question one must ask is whether an armoured divisional commander needs that which an armoured car regiment has to do, that is, to carry out reconnaissance for him and to be his eyes. My own personal answer is yes, he does need those eyes very much indeed. The second thing to remember

is are those eyes correct, so to speak, as we have them to-day? My own view on that is that the armoured car which we have at present in the armoured division is not the correct vehicle or will not be. My main reason for that is this. I think that we used the armoured car a great deal in the last war for offensive reconnaissance, and for that purpose the armoured car may well be the best answer; but, as I see it, in the future we shall be doing a great deal of defensive reconnaissance. That means to say we shall not be sending out vehicles to find out where the enemy is not, which is very important, but we shall be sending out people to find out where the enemy is, and of course on the defensive there will be the screening of flanks which is so very important.

Therefore, I think that, in considering the future of the armoured car regiment, what I should like, as a divisional commander, is that it should remain my eyes, but that it should carry, as its two basic weapons, really effective machine guns and anti-tank guns, although I do not think that each vehicle need necessarily carry both. The vehicle which carries those weapons must be capable of getting across country very quickly. Whether that will result in a tracked or a wheeled vehicle I do not know, but I think we must all put our thinking caps on quickly and work it out.

Secondly there is the question of the number of vehicles and the speed of taking advantage of the atomic missile. I think that is a very great problem indeed. I have already suggested having fewer vehicles in our lorried brigade. I do not want a workshop going about at that period. I have also suggested that I think we are carrying too much ammunition. Discarding either of those two things will mean taking risks with the organization of the armoured division, but in the search for this speed I think that we have to take very great risks.

THE CHAIRMAN: As I understand your thesis it is to get your armoured division, or some part of it, quickly to the vital place where the atomic weapon has created the situation. Surely you are not thinking in terms of getting the whole armoured division there? Does not that come back to the battle group within the armoured division, which must be carefully worked out so that it contains only those units required for the job?

THE LECTURER: Yes, within reason. I believe we have to develop the technique of concentrating for the first time on our main objective, and it is very difficult to do. I believe that is the problem with which we are beset. You have to come in from different angles on to your main objective, but the very fact that you are all going in together must be giving you mutual support.

BRIGADIER W. S. KING: The lecturer has spoken of controlled dispersion and lightning concentration. Does he envisage the move from dispersion to concentration with what the tank or armoured vehicle can carry on its back, or must it have fuel and food in that period? If so, what sort of vehicles, even if in small numbers, does he think are required to support the tanks?

THE LECTURER: Once it gets on the move I think that the next time it will get anything in the nature of food will be at its main objective. The timing of the movement of these groups will be based on the time at which you know the bomb is going to be dropped. You know that 'bomb hour' is such and such a time and then you work backwards. It will often be possible to have a small administrative halt for topping up just before 'bomb hour.'

MAJOR-GENERAL G. N. TUCK: I think that it is a little dangerous to lecture only from the point of view of atomics. There are other weapons which produce casualties, and one in particular is the fighter aircraft armed with rockets. How will that be dealt with by armoured formations?

THE LECTURER: I know of nothing, nor have I seen anything, that really frightens me in regard to receiving heavy casualties from such a weapon. We will receive casualties from such aircraft, but it will not be worse than the 88 was—probably not nearly so bad.

MAJOR-GENERAL B. T. WILSON : In German books dealing with the handling of armour by the British, reference is always made to the heaviness of the British command structure. I have been employing some of my spare time in looking through the administrative handbooks of the day, and to my astonishment they seem to be very little different from those in the 1939-45 War, and I wonder whether there is not some force in what the Germans say about our command structure, and its bad effect on the supply system from the base upwards.

THE LECTURER : I think one hopes that as we develop the streamlining of our administration, as I am convinced we shall have to do, some help may come to us along that line. There is no doubt that we are more heavily commanded than any other nation. On the other hand we have won the last two wars. I think that I should much sooner cut down size, and I know how difficult that is with my own divisional headquarters. The cutting out of a whole headquarters presents great difficulties. The association between army and air force cannot happen before army headquarters, so you cannot cut it out. Corps headquarters has many important functions, of which artillery direction is very important.

I did suggest that the army that I was considering had seven divisions. Perhaps we can all go away and ponder whether that would require a corps headquarters in it or not.

THE CHAIRMAN : General Pyman stressed the three really essential characteristics of armoured action—speed, boldness, and defensive action. He also painted a fascinating picture of the role of armour both offensively and defensively in a period of atomic weapons. When listening to him the one thing which stood out above all else so far as I was concerned was that if in the past it has been important for divisions to go into battle under the right commanders and to be properly trained, under to-day's conditions this is absolutely essential. The problems of dispersion and then rapid concentration on the objective make one appreciate the high standard of training which must be reached by all junior leaders. It makes one realize also the absolute necessity in peace-time of keeping our Army in the shape in which it will fight in war, and of giving the commanders of formations in that Army a really free run in their training.

After listening to General Pyman to-day I feel personally, as I feel sure you do, a renewed confidence that the 11th Armoured Division at any rate will get that. I think that General Martel put his finger on it when he said that this was the best talk on armour that he had ever heard. An immense amount of work must have gone into producing this picture which told the story of the past, and pointed to the form of the future. I think that General Pyman has done us a great service by coming here to-day. As he will appreciate it is not only this comparatively small audience, but the far bigger Service audience throughout the world who will read his lecture in the JOURNAL and who will benefit from it.

On behalf of the Institution I thank General Pyman very much indeed. (*Applause.*)

THE CONSPICUOUS GALLANTRY MEDAL

By COMMANDER W. B. ROWBOTHAM, R.N.

THE Conspicuous Gallantry Medal (C.G.M.) is the naval counterpart of the medal which is awarded to other ranks in the Army for distinguished conduct in the field (D.C.M.). Both are highly prized decorations.

Before the Russian War, 1854-56, it was extremely rare for individual acts of gallantry in the presence of the enemy, whether performed by officers or men, to be marked by any special form of recognition. Although no major war had occurred since Napoleon was finally interned at St. Helena, the Royal Navy had had no lack of minor encounters with an enemy in all parts of the world—mostly with pirates, slavers, and the like. Good service on the part of an officer often brought him special promotion, but for the rating (who at that period was not a long-service man) the chance of 'picking up a rate' depended upon whether there was a vacancy for it in the ship in which he was serving. Pecuniary rewards for gallantry in action were unknown.

The early history of the desire on the part of the authorities to provide some visible form of recognition for individual acts of gallantry, coupled with an appropriate pecuniary reward, is clearly set out in *The Origin of the Medal for Distinguished Conduct in the Field* by Brigadier H. B. Latham.¹ That account, however, is confined to outlining the evolution of the regulations for the Army, and it contains no mention of those which affected the Royal Marines, and later the Royal Navy. In order to understand how the Navy acquired its own gallantry medal, it is necessary to trace the origin of the Meritorious Service Medal for the Army for, to begin with, the same medal, though with different words on the reverse and with a different ribbon, was issued to both Services. The matter is rather involved, but briefly the sequence is as follows :—

By the Royal Warrant of 19th December, 1845, annuities were approved to be granted to sergeants in the Army as a reward for distinguished or meritorious service. The recipients of this honorary distinction were also entitled to wear a silver medal, bearing on the obverse the Royal Effigy and inscribed on the reverse "For Meritorious Service," suspended by a crimson ribbon. This medal was also known as the Annuity [or Sergeants'] Medal, and in fact it is so called in the Order in Council of 8th February, 1855. It will be observed that this mark of encouragement was more of the nature of a reward for long service and good conduct (for which separate medals with gratuities already existed for both Services) than for gallantry in action, which latter qualification is not mentioned at all in the Warrant. By Order in Council of 15th January, 1849, the above provisions were extended to include sergeants of Royal Marines, who wore the same medal suspended by a dark blue ribbon.

It is not known for certain how many of these medals were, in fact, issued to the Marines, but it is on record that on 18th July, 1849, the Treasury authorized the Royal Mint to supply the Admiralty with "fifty Sergeants' Annuity Medals at present and occasionally as they may be required similar to those given to the Army." One more medal was supplied in 1850, though none was in 1851 or 1852.

After the battle of Inkerman (5th November, 1854) it became evident that there had been many instances of individual acts of gallantry in the Crimea, and public opinion was insistent that some form of recognition was justly due to the men who

¹ JOURNAL, August, 1953.

were deserving of it. Action speedily followed, though at first it was confined only to the other ranks in the Army. In the official discussions on how best to implement this desire to provide a suitable reward, it is to be noted that only the war in the Crimea was considered; the less important concurrent and seasonal operations in the Baltic and in the White Sea, being almost entirely naval, were not taken into account.

The scope of the Royal Warrants on this subject, which were bound up with the necessary Treasury concurrence for the total sum that could be spent on such monetary rewards in any one year, was extended in a new Warrant, dated 4th December, 1854. When the text of the new Warrant was promulgated, it was observed that no provision had been made for similar rewards to the Royal Marines. Many of the non-commissioned officers of the Royal Marines who were embarked in the Mediterranean Fleet had been landed for the operations in the Crimea, and it was considered by the Admiralty that they were equally entitled to the same reward for "gallant conduct in action before the enemy" that sergeants in the Army were already eligible for, *i.e.*, for distinguished and meritorious service and gallant conduct in the field. This omission was rectified by the Order in Council of 8th February, 1855, in which the grant of the Annuity [or Meritorious Service] Medal and corresponding pecuniary award (not exceeding £20 in each case) was extended to "one or two sergeants of Royal Marines." This involved increasing the total sum (£250 a year) then authorized by the Order in Council of 15th January, 1849, to accompany the awards of the medal by a further £50 a year.

The Royal Warrant of 4th December, 1854, also authorized the grant of a scaled gratuity (*not* an annuity) according to rank to a limited number of other ranks, in the proportion of one sergeant, two corporals, and four privates of each regiment serving in the Crimea; the recipients were also to receive "a medal." This medal with gratuity was the D.C.M. The gratuity was placed on deposit at interest in the Regimental Savings Bank until the man's final discharge from the Service.

No provision in this respect had yet been made in favour of ratings in the Royal Navy. We have seen that, since the earlier Warrant of 19th December, 1845, the regulations governing these awards to the Army had been expanded more than once. On 13th August, 1855, sanction was given by Order in Council for the provisions of the Royal Warrant of 4th December, 1854, to apply in like manner to petty officers and seamen of the Royal Navy, as well as to all other ranks of Royal Marines. Medals and gratuities, on the recommendation of the naval Commander-in-Chief, therefore became available to naval ratings and all other ranks of Royal Marines in the following proportions for every thousand men:—

Eight petty officers or sergeants and corporals, and ten seamen or privates, in sums of £15 to each first-class petty officer or sergeant; £10 to each second-class petty officer or corporal; and £5 to each seaman or private.

In the event of any smaller number of men being engaged, the medals and gratuities were to be granted in like proportion, according to the number actually employed. The gratuities were to come out of the Vote for Sea Wages, and were not to exceed the total sum of £4,000 in any one year.

The medal issued to the Royal Navy and Royal Marines bore on the obverse the Royal Effigy, but in order to avoid incurring the expense of making new dies, the existing military Meritorious Service Medal was used, the words MERITORIOUS SERVICE, which were in relief from the die, being erased from the reverse and the words

CONSPICUOUS GALLANTRY engraved in place thereof;² the colour of the naval ribbon was blue, white, blue in equal stripes. The medal was awarded only for acts of gallantry performed in 1855, in both the Black Sea and the Baltic; and after the Victoria Cross was instituted on 29th January, 1856, no further awards of the 1855 medal were made to sailors or marines. Not more than ten of these medals were ever awarded, and it is of interest to note that six of the recipients subsequently received the V.C. for the same acts of gallantry. In the printed medal books this medal is called the Conspicuous Gallantry Medal, but no official record has been found to show that this was its official title.

Some of the Admiralty records of this period are now missing, but two years seem to have elapsed before any of these medals were actually issued. It is known, however, that on 3rd November, 1857, the Admiralty requested the Royal Mint to supply 100 medals for "Meritorious Service," which elicited the statement that "no medal of that description appears to have been issued to the Admiralty since the Mint was reconstituted in 1851." It was added that the Mint "held the dies of a corresponding medal for the Army . . . , the obverse being the head of Her Majesty as usual. If this is the medal desired, the number required can be immediately struck off. . . ." The Admiralty, in reply, stated that "the medals required are exactly similar to those described by you as being in use in the Army. The medals are required by Their Lordships for the use of the soldiers in the Royal Marines." A supply of the same was therefore requested as soon as possible.

Hitherto awards for gallantry in action had been restricted to services in the Crimean and Baltic campaigns only. The arguments for perpetuating the award of gallantry medals and the financial clauses attached to them continued unabated after the Russian War, but it was not until 1862 that the whole question was finally clarified, as far as the Army was concerned. By the Royal Warrant of 30th September, 1862, a silver medal, bearing on the obverse the Royal Effigy and on the reverse the words "For Distinguished Conduct in the Field," but without annuity or gratuity, was authorized to be awarded to all other ranks in the Army for individual acts of distinguished conduct in the field in any part of the world.³ It should be noted that the obverse of the D.C.M. of 1862 bore a military trophy with the Queen's arms, and not the Royal Effigy. From that time onwards it was the medal that mattered, and not the financial clauses originally attached. A further 12 years, however, elapsed before a similar medal for the Royal Navy and Royal Marines was instituted.

At the present time, chief petty officers, petty officers, and seamen in the Royal Navy and other ranks of Royal Marines are eligible for the D.C.M. when the acts for which the medal is awarded have been performed whilst serving under the orders of the General Officer Commanding-in-Chief in the field. So far as is known, there has been only one such award. This was to Lance-Sergeant James Edward Preston, R.M.L.I. (*Orlando*), who received both the C.G.M. and the D.C.M. for gallantry during the Boxer Rebellion in China in 1900, at the defence of the Peking Legations and elsewhere.

Although awards of the Victoria Cross continued to be made—during the next 18 years after the end of the Russian War eight such decorations were bestowed upon

² A notation in the Admiralty records, dated 10th October, 1855, reads—"Approved the words 'Meritorious Service' [on the reverse] to be exchanged and 'Conspicuous Gallantry' inserted."

³ A few specially recommended sergeants with annuity were allowed to change their M.S.M.s for the D.C.M.

petty officers and seamen in the Royal Navy—it was not until 1874, after the termination of the Ashantee War, that naval ratings, together with other ranks of Royal Marines, were granted their own medal for individual acts of conspicuous gallantry in action with the enemy in any part of the world. This medal is called the Conspicuous Gallantry Medal. In the order of precedence in which it is worn it comes immediately after the D.C.M. The description is as follows:—

- Obv.* Head of Queen Victoria, diademed, *l.*
Legend. VICTORIA REGINA
Exergue. W. Wyon, R.A.
- Rev.* A wreath of laurel, tied with a ribbon at the base, encircling the words FOR CONSPICUOUS GALLANTRY. Above, a Crown.
- Circular.* 1.4 inches. Silver.
- Mounting.* A plain silver bar and claw clip.⁴
- Ribbon.* 1½ inches wide. Blue, white, blue in equal stripes.⁵

The obverse, of course, varies according to the reigning Sovereign at the date of issue. Medals issued in the reign of King Edward VII show a bust of His Majesty, *l.*, wearing the full dress uniform of an admiral of the fleet, with the Star and ribbon of the Garter. There is a similar design for King George V. After the accession of King George VI the design of the obverse was altered to a crowned Effigy, *l.* The legend on the reverse, including the Crown, has remained unchanged throughout. On the later medals the name and rank of the recipient and the date of the act are engraved on the edge.

By the Order in Council of 7th July, 1874, in which the medal was established, it is set forth that "this medal may, at the discretion of the Lords Commissioners of the Admiralty, be accompanied by the grant of an amount (not exceeding £20) in the cases of Chief and First-class Petty Officers of the Navy and Sergeants of Royal Marines, provided the amount authorized from time to time for such annuities by the Lords Commissioners of Her Majesty's Treasury is not exceeded. As these rewards are intended for such men only as shall have rendered themselves individually conspicuous by some special act of pre-eminent gallantry in action with the enemy, great care is to be taken that the cases of the men recommended come strictly within the spirit of the Order in Council; and that the case of each man be accompanied by a full statement of the grounds on which his claim to this distinction is founded."

As will be seen later, this proviso has always been strictly adhered to, and the total number of C.G.M.s that have been awarded since the medal was first established is very small. It is therefore a rare decoration, and is all the more highly esteemed.

From time to time since the establishment of the C.G.M., the regulations governing the grant of annuities and gratuities have been amended by Orders in Council, the application of these amendments being at the discretion of the Lords Commissioners of the Admiralty. Thus,

By Order in Council of 22nd February, 1896, the grant of an annuity might be extended to all recipients of the medal, whatever their rank or rating may have been when it was awarded, on their promotion to chief or first-class petty officers, or sergeants, R.M.

And by Order in Council of 29th May, 1903, a seaman or marine holding the C.G.M. unaccompanied by an annuity might be awarded a gratuity at the completion of his term of active service, or on being invalided from the Service, or on promotion to a

⁴ In the 1855 medal, the mounting was a scroll bar.

⁵ Changed in 1921 to white, with narrow dark blue edges.

commission. At the same time, it was also enacted that a seaman or marine who had received the D.C.M. for service under the War Office might be awarded a gratuity of the same amount when similarly discharged from the Service or promoted to commissioned rank, except when such recipient was already in possession of the C.G.M. accompanied by an annuity.

The greater number of opportunities for gaining the C.G.M., which arose during the 1914-18 War, gave rise to further amendments to the regulations governing the award of this medal.

By Order in Council of 27th June, 1916, it was sanctioned that the annuities granted with the C.G.M. might be retained by seamen or marines who were promoted to permanent or temporary commissioned rank (other than that of quarter-master in the Royal Marines). Also the clause, first introduced for the Victoria Cross in 1856, whereby a subsequent act of gallantry was rewarded by the addition of a bar to the medal previously conferred, was now authorized for the C.G.M., a silver rosette for each bar awarded being sewn on the ribbon when it is worn without the medal.* The bar is an ornamental design to show a spray of leaves on the front, the date of service being engraved on the back of the bar. Up to the present time there has been only one such award of a bar to the C.G.M. This was granted in 1918 to Acting Chief Petty Officer Arthur Robert Blore, C.G.M., R.N.V.R. (Anson Battalion, 63rd Royal Naval Division), for gallantry on shore near Prouville, France; he was awarded the medal in 1915 for gallantry on shore at Gallipoli, when he was then a leading seaman.

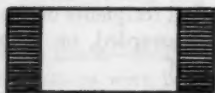
On 5th November, 1917, approval was given for recipients of the Conspicuous Gallantry Medal to use the initial letters, C.G.M., after their names.

After the end of the 1914-18 War the Admiralty Medal Committee pointed out that the same ribbon was used for two different decorations, *viz.* the Distinguished Service Cross (D.S.C.) and the C.G.M., and they suggested that each should have its own ribbon. At that time the total number of D.S.C.s awarded was more than ten times that of the much rarer C.G.M., of which no more than 160 and one bar had yet been granted. To find another distinctive combination of blue and white was not easy. The old C.G.M. ribbon, with the addition of a narrow blue stripe down the centre, had already been appropriated for the Distinguished Service Medal (D.S.M.) in October, 1914; and to adopt the ribbon of the Naval General Service Medal, 1915, with the red altered to blue, did not provide a sufficiently distinctive difference. It was therefore proposed to resurrect the ribbon of the old General Service (Navy) Medal, 1793-1840 (white with narrow dark blue edges), all recipients of which were by then deceased. The change was authorized in June, 1921, the new ribbon being supplied to all holders of the C.G.M. without demand.

Old



New



Before the 1939-45 War the award of the C.G.M. had been confined to the Royal Navy and Royal Marines; but after war broke out it was clear that the Merchant

* The bar to the D.C.M. was authorized by the Royal Warrant of 7th February 1881.,

Navy was equally exposed to identical dangers from enemy action. Privateering having been abolished since 1856, a merchant ship which attacked an enemy in the first instance rendered her crew liable to be regarded as *franc-tireurs*, whose shrift, if captured, was likely to be short and sharp, as happened to the unfortunate Captain Fryatt (s.s. *Brussels*) in the 1914-18 War. If, on the other hand, they had defended themselves against attack, their actions were not regarded in the above light and they were then treated as prisoners of war.

During the first half of the 1939-45 War there had been many cases of individual gallantry and devotion to duty in the face of the enemy on the part of merchant seamen, which had been recognized by the award of medals other than those reserved for the fighting Services, and the question was raised whether they also should be made eligible for the C.G.M. Opinions differed; not so much on the ground that the C.G.M. had hitherto been the preserve of the Royal Navy and Royal Marines as for fear, in the interests of the merchant seamen themselves, of a possible repetition of the fate of Captain Fryatt. That, in appropriate circumstances, they might perform acts worthy of the C.G.M. was not in dispute.

Eventually, in order to give every possible encouragement to members of the Merchant Navy to persevere with their important and essential duties on a national basis, it was approved by Order in Council of 17th September, 1942, for the C.G.M. to be made eligible to persons in the Merchant Navy, of equivalent rank to that of petty officer or seaman in the Royal Navy, for such special acts of conspicuous gallantry in action with the enemy as seemed to the First Lord of the Admiralty to render such individuals eligible for the award. No member of the Merchant Navy, however, has yet received the C.G.M.

Reference has been made to the pecuniary benefits attaching to the C.G.M. These have varied slightly at different times, though never in any great degree. The present scale laid down, which does not apply to awards made before 3rd September, 1939, is as follows:—

For chief petty officers, petty officers, and equivalent Royal Marine ranks who have been awarded the medal up to the end of the 1939-45 War:

Annuity up to £20 concurrently with the award of the medal. (In practice, an annuity of £10 is usually paid.) For a bar, the balance of the original annuity (i.e., £10 *per annum*) would usually be paid.

Ratings and ranks below petty officer or equivalent status, and members of the Merchant Navy of status equivalent to chief petty officer or below, who have been awarded the medal since 2nd September, 1939; chief petty officers, petty officers, and equivalent Royal Marine ranks who are awarded the medal after the end of the 1939-45 War:

Addition of 6d. a day to service or disablement pension, or a gratuity of £20 on discharge or transfer to a Reserve without pension; or on appointment to a commission to naval branch rank or rank equivalent thereto. For each bar, an additional gratuity of £20.

The annuity, it will be seen, is now discontinued for fresh awards after the end of the 1939-45 War.

THE CONSPICUOUS GALLANTRY MEDAL (FLYING)

Hitherto, we have been concerned only with rewards for acts of conspicuous gallantry at sea or on land. It is now time to refer to similar acts in the air. The Royal Air Force, which was formed by the amalgamation of the Royal Flying Corps and the Royal Naval Air Service, did not come into being until 1st April, 1918. The aircraft of the 1914-18 War were small in size, and the pilots and observers who flew in them were always officers of commissioned rank who were eligible for other decorations. The need to make special provision for other ranks in the R.A.F. did not therefore immediately arise. But in the 1939-45 War, owing to the great increase in number and size of aircraft employed, the air crews comprised a large proportion of other ranks who, if opportunity offered, were no less capable of performing similar acts of gallantry. It was not until towards the end of 1942, however, that any concrete proposals to this end took shape.

By the Royal Warrant of 10th November, 1942, the eligibility for the Conspicuous Gallantry Medal of 1874 was extended to "members of Our Military and Air Forces for acts of conspicuous gallantry whilst flying in active operations against the enemy." The medal conferred is identical with that of 1874 (*i.e.*, the obverse bears the Royal Effigy and the reverse the words "For Conspicuous Gallantry" encircled by a wreath surmounted by a crown), except that the colour of the ribbon is different, being light blue with dark blue marginal stripes one-eighth inch in width. The full title of the medal is the Conspicuous Gallantry Medal (Flying).

The following are eligible for the medal :—

(a) Warrant officers, non-commissioned officers, and men of any military or air force raised in the United Kingdom and elsewhere in the British Empire at that date.

(b) Foreign personnel of ranks equivalent to those above, who have been associated in operations with any of the aforesaid military or air forces.

The same regulations respecting the award of bars, and the grant of gratuities or pension in lieu thereof, as are in force for the C.G.M. are equally applicable.

The citations in *The London Gazette* show that the C.G.M. (Flying) was not a medal that was easily earned. In the two and a half years of war during which it was established the number awarded was 101. It is of interest to note that, during the same period, the number of C.G.M.s awarded to seamen and marines was 27, and that the total for the whole of the 1939-45 War was 72.

As has been mentioned, the number of C.G.M.s that have been awarded since 1874 is remarkably small compared with that of the corresponding Army medal, the D.C.M. The total is as follows :—

Year gazetted	R.N.	R.N.A.S.	F.A.A.	R.N.R.	R.N.V.R.	Dom. Navy	R.M.	Total
1855 ...	9	—	—	—	—	—	1	10
1874 ...	11	—	—	—	—	—	10	21
1875 ...	1	—	—	—	—	—	—	1
1876 ...	3	—	—	—	—	—	—	3
1881 ...	1	—	—	—	—	—	—	1
1883 ...	—	—	—	—	—	—	6	6
1884 ...	1	—	—	—	—	—	3	4
1885 ...	1	—	—	—	—	—	—	1
1889 ...	1	—	—	—	—	—	—	1
1894 ...	2	—	—	—	—	—	—	2
1901 ...	8	—	—	—	—	—	1 ¹	9
1904 ...	1	—	—	—	—	—	1	2
1914 ...	1	—	—	—	—	—	—	1
1915 ...	14	2	—	—	5	—	4	25
1916 ...	17	—	—	1	4	—	4	26
1917 ...	10	1	—	10	—	—	4	25
1918 ...	17	1	—	5	2 ²	—	3	28 ²
1919 ...	1	—	—	—	2	—	—	3
1927 ...	2	—	—	—	—	—	—	2
1940 ...	9	—	—	2	—	—	3	14
1941 ...	12	—	—	—	—	1 ³	1	14
1942 ...	12	—	2	1	—	2 ⁴	—	17
1943 ...	6	—	—	—	—	—	2	8
1944 ...	9	—	—	—	—	1 ⁵	1	11
1945 ...	7	—	—	—	—	—	—	7
1946 ...	1	—	—	—	—	—	—	1
Total ⁶	148	4	2	19	13 ²	4	43	233 ²

¹ Also received the D.C.M.² In addition, 1 bar.³ 1 S.A.N.F.⁴ 1 R.C.N.R. ; 1 R.A.N.V.R.⁵ 1 R.C.N.V.R.⁶ The awards in 1855 are not included in the totals.

C.G.M. (Flying)

	Year gazetted				Total
	1943	1944	1945	1946	
R.A.F. ...	27	3	3	—	33
R.A.F.V.R. ...	11	14	17	—	42
Aux. A.F. ...	1	—	—	—	1
R.A.A.F. ...	4	3	2	—	9
R.C.A.F. ...	6	3	2	—	11
R.N.Z.A.F. ...	2	2	—	—	4
Glider Pilot Regt. ...	—	—	1	—	1
Army Air Corps.	—	—	—	—	—
Total ...	51	25	25	—	101

A nominal list of all holders of the C.G.M. and the C.G.M. (Flying) will be found in the R.U.S.I. Library.

THE STANDARDS AND COLOURS OF THE ARMY FROM KING HENRY VII TO KING CHARLES I

By COLONEL H. C. B. ROGERS, O.B.E.

THERE is a wealth of documentary evidence concerning the flags which were borne by the English armies in mediaeval times and those carried during and after the war between King and Parliament. Between the Battle of Bosworth, which terminated the Wars of the Roses, and the first quarter of the XVIIth Century, however, there is a transitional period about which little is known and no consecutive history has yet been written.

The defeat of King Richard III at Bosworth in 1485 marked the end of an epoch. The power of the great feudal barons had been broken, and henceforward all the fighting forces of the Country were under the direct authority of the King. Private armorial banners and standards still flew over the lands and residences of their owners and from their tent poles in the field, but they gradually disappeared from the units of the Army and from the ships of war. Some 150 years later the system of infantry Colours had been adopted which is still in use by the Foot Guards of today.

MEDIAEVAL FLAGS

The principal heraldic flags carried by the mediaeval armies of Europe were the banner, the standard, the guidon (from the French *guide-homme*), the pennon, and the pennoncel or pensil. A knowledge of their appearance and use, or probable use, is of importance in arriving at a theory of subsequent development.

(a) *The Banner*

The banner was the earliest and most important of the heraldic flags. The whole of its surface, like that of the shield, was emblazoned with its owner's arms. Every feudal baron had his banner of arms which was followed by his knights and retainers; and the lesser barons, in their turn, followed the banners of the great lords. At the siege of Caerlaverock in 1300, there was one banner to every 25 or 30 men. The most important banner in England was, of course, that of the King, which was first carried by King Richard Coeur de Lion; 'Gules, three leopards in pale or.' As it became customary to introduce quarterings on a shield to denote family and territorial alliances, so these quarterings also appeared on banners. The best known modern example of a quartered banner is the misnamed Royal Standard, which incorporates the ancient arms of King Richard I.

A banner was not allowed to be borne by anyone lower in rank than a knight-banneret, and when a knight was made a knight-banneret on the field of battle the swallow-tail ends of his pennon were cut off, thereby making it rectangular, or technically a banner. The banner and pennon were as dear to their owners as their life or honour, and, according to an ancient writer, "from a standard or streamer a man may flee, but not from his banner or pennon bearing his arms."

(b) *The Standard*

The term 'standard' is very much older than the heraldic flag to which the name was given. In its early English usage it merely meant a flag which stood in one place, as opposed to the mobile banners which led the troops into battle. The ancient English Royal Standard was the Dragon, which appears to have been carried from very ancient times until, at any rate, the Battle of Agincourt. The *Draco* or Dragon of the Roman Army, from which the English standard was probably derived,

was originally a Parthian standard. It was adopted by the Romans some time after the death of Trajan and seems to have been used as the standard of the auxiliaries. It took the form of a dragon which was fixed by the head to the top of a lance. The body was of coloured silk with gaping silver jaws. When the wind blew down the open jaws the body was inflated. Following the departure of the Roman legions from Britain it seems likely that the fight against the invading barbarians was carried out under the Roman *Draco*; for this was the standard of the auxiliaries, and the British auxiliaries would have been the only troops left in the Country. The Dragon is mentioned in the Arthurian legends, and the British Prince Cadwallader, who lived about 200 years after the departure of the legions, is stated to have borne it. The West Saxons adopted the Dragon as their emblem, possibly to signify the defeat of their British opponents who had carried it into battle against them; and the Wessex standard of a Golden Dragon was carried at the Battle of Burford in 742. The Gold Dragon was, too, the centre of that last stand by King Harold's housecarles at the Battle of Hastings. Its shape and construction, as shown in the Bayeux tapestry, must have been very similar to the *Draco* of the Romans. The Dragon was apparently recognized as the English Royal Standard by the Norman conquerors who adopted it for their own use. In 1191, during the Third Crusade, King Richard I is stated to have "fixed his standard in the midst of his forces and handed the Dragon to Peter des Preaux to carry"; and Richard of Devizes wrote, "the terrible standard of the Dragon is borne in front unfurled." King Henry III ordered a Dragon to be made "in the manner of a standard or ensign of red samit to be embroidered with gold and his tongue to appear as thought continually moving and his eyes of sapphires or other stones agreeable to him." (This standard was intended for Westminster Abbey, which the King was rebuilding.) At the Battle of Crecy in 1346, King Edward is recorded as having raised "his unconquered standard of the Dragon Gules," and an illustration from a French MS. of Froissart's "Chronicles" of the battle shows a large tapering flag or standard with a Dragon occupying the whole of its surface flying beside the banner of the Royal Arms. The Dragon standard is recorded again at the Battle of Agincourt. At the Battle of Bosworth King Henry VII had, as one of his standards a "Red Fiery Dragon."

About the middle of the XIVth Century, standards began to become popular amongst the fuedal barons, and in the following century they came into very general use. On them were displayed their owner's badges, rather than his arms, and they generally conformed to a similar design. The flag was long and tapering and generally slit at the fly. In a compartment next to the staff was the red cross of St. George on its white or silver field. The remainder of the flag was generally, but not necessarily, parted per fess (that is, horizontally), and was normally of the owner's livery colours, though it was permissible to use any suitable colour. Round the edge of the flag was a fringe of the owner's livery colours. Across the middle of the flag it was customary to have bendwise (slanting) bands inscribed with a motto. The remainder of the flag was emblazoned with its owner's badges.

By the later XVth Century the standard had increased in importance and to a certain extent had displaced the banner from its pre-eminent position. At the Battle of Bosworth King Henry VII, according to the historian Hall, fought under the following standards: "The first had an image of St. George; the second, a Red Fiery Dragon beaten on white and green sarsenet" (that is, per fess argent and vert, a Dragon gules); "the third was of yellow tartime on which was painted a Donne Kowe" (i.e., a dun cow). The image of St. George was probably, as we shall see

later, the figure of a mounted man. The Dun Cow of Warwick was a badge of King Henry VII and is now the badge of the 12th Company of the Coldstream Guards. All these standards probably had the Cross of St. George on the compartment next to the staff.

(c) *The Guidon*

The guidon was of later introduction than the standard and was supposed to be one third shorter. It seems to have been very similar in design to the standard, though it was sometimes, apparently, emblazoned with its owner's arms as well as his badges. In No. 2358 of the Harleian manuscripts it is stated that, "every standard or guydhome is to hang in the chief the Crosse of St. George, to be slitte at the ende, and to conteyne the crest or supporters, with the poesy, word, and device of the owner." Like the standard, however, the guidon was sometimes rounded at the fly instead of being slit. Being lighter and more portable than the standard the guidon was probably used, in certain circumstances, as a substitute for it. It was always, and this is of later importance, the lesser flag of the two.

(d) *The Pennon*

The pennon was the flag of a knight exercising command in the field. It was generally swallow-tailed at the fly, though sometimes it tapered to a point. A pennon was normally emblazoned with the knight's arms, but sometimes with his badge.

(e) *The Pennoncel or Pensil*

The pennoncel or pensil was a very small triangular flag carried on a lance by knights and esquires. It was emblazoned either with arms or a badge and was carried at the head of the lance. The device was generally upright when the lance was held in the horizontal position. (The pennoncel was often loosely called a pennon, but the latter was properly a much larger flag.)

(f) *The Banner of England*

In the XIIIth Century three saints had become established as the patrons and protectors of England. These were St. George, St. Edward the Confessor, and St. Edmund. Arms were attributed to them and the banners of their arms accompanied the banner of the Royal Arms of England in the field. The first known mention of the arms or banner of St. George (Argent, a cross gules) is in connection with King Edward I's war against the Welsh in 1277. There are records of payments to the King's tailor, for white and coloured cloth to make pennoncels and bracers (for the left forearms of the archers) "of the arms of St. George." The red cross of St. George already seemed to be in greater favour than the arms of the other two saints for making small flags and badges, probably because of its simplicity and ease of manufacture. Whatever the original reason for its popularity, the red cross became, apparently, the emblem of troops raised for the King's service, as opposed to those recruited by the great feudal barons and wearing their livery or badges.

At the siege of Caerlaverock the banners of the three saints were displayed together, but by the middle of the XIVth Century the pre-eminence of St. George seems to have been undisputed. The narrative of a priest who accompanied the expedition to Harfleur in 1415 states that after its capture "the banners of St. George and the King were fixed upon the gates of the town." In the same year, after the Battle of Agincourt, a Convocation of the Province of Canterbury established St. George's Day as one of the principal feasts of the Church in England. The Archbishop of Canterbury, on this occasion, declared the saint to be "the patron and special

protector of the nation"; and added, "For by his intervention, as we unhesitatingly believe, not only is the armed force of the English people directed in time of war against hostile invasions, but by the help of such a patron the struggles of the unarmed clergy in time of peace are frequently strengthened."

(g) *Summary*

At the close of the mediaeval period it is probable that the standard was the principal flag used by the King and the great nobles in the field. Owing to its large size it would probably be sited in a central position. In conjunction with it, the smaller guidon may have been carried by a mounted standard bearer. The lesser commanders on the field appear to have fought under their banners and pennons which, at the period, were most probably increasingly carried on foot. Troops employed directly in the King's service would have marched behind the cross of St. George instead of the personal armorial banners.

AFTER BOSWORTH

There is little to show the development of fighting flags for the first 60 years after the Battle of Bosworth, but the old forms seem to have continued for some years. The standard, guidon, and pennon were, as appears from later development, gradually accepted as flags proper to the cavalry; probably because they had generally been carried by mounted men. The armorial banners of their captains may have led the companies of foot, until they were replaced by flags with variously coloured bars or stripes. The mediaeval pattern of standard was still in use, at any rate in Scotland, in the first quarter of the XVIth Century. At the Battle of Flodden in 1513, the Earl Marshal of Scotland had a red standard of the traditional shape, emblazoned with three goats' heads couped and bearing the motto "Veritas Vincit." In the same year the "mayn standert" of the Scottish ship *Great Michael* had the white saltire on a blue field next to the hoist, and the fly divided horizontally red and yellow (the Stuart livery colours) and charged with the Royal badges of the red lion and the white unicorn.

THE CAMPAIGN IN FRANCE, 1544

King Henry VIII's expedition to France in 1544 was commemorated by a series of paintings. These paintings were unfortunately destroyed in 1793, when Cowdray House in Sussex was burnt down. In 1788, however, facsimiles of the originals were engraved and these engravings give invaluable information about the military flags used at the time. Unlike some other descriptive paintings of the period they are probably accurate, for they were almost certainly executed under the direct supervision of Sir Anthony Browne who, as Standard Bearer to the King, was present throughout the operations and owned Cowdray House. The paintings depicted the siege of Boulogne, the encampment at Marquison, the departure from Calais, and the encampment of the forces at Portsmouth. That of the siege of Boulogne is probably the most informative about military flags. Armorial banners surmount the tents of the principal officers, but there are none with the various bodies of troops. The banner of St. George, the red cross on white, is prominent in many parts of the field. In addition there are many flags with bars (i.e., horizontal stripes), carried with detachments of infantry and flying at the artillery batteries. One of them has bars alone, but the majority show the Cross of St. George impaled with a barry field (i.e., divided vertically with the St. George next to hoist and the barry design in the fly). One of these flags, in a description of the painting written in 1772, is said to be "the Cross of St. George impaled with barry of eight azure and or (i.e., divided

horizontally into eight pieces of blue and gold). The origin of these barry flags is unknown, but they had probably been in use for some time, for one is shown in the Windsor Castle painting of the embarkation of King Henry VIII at Dover in 1520. It may be that at first, when captains raised companies from their own estates and neighbourhood, the company Colour was the captain's armorial banner, in continuation of mediaeval practice. Later, perhaps, the flag was made simply barry of the livery colours, which were frequently the first mentioned metal and colour in the arms (it is of interest to note that in heraldry these tinctures are frequently referred to as 'the colours'). This theory is supported by Markham in his *Five Decades of Epistles of Warre*, published in 1622, in which he says that captains' Colours ought to be composed equally of a colour and a metal. Robert Barrett, in his *The Theorike and Practike of Modern Warres*, published in 1598, defines the term 'Colours' as a "word used by us for the ensign, being of variable colours." In the picture of the "Encampment of the English Forces near Portsmouth," one strong body of infantry carries one banner of St. George and one barry flag.

Near to the King in the painting of the siege of Boulogne is a body of cavalry. These are the Gentlemen Pensioners (now the Honourable Corps of Gentlemen at Arms). They carry four flags:—

(a) A banner of St. George.

(b) A square flag, fringed with alternating tinctures and charged with the figure of an armed man on a galloping horse. This is probably the "image of St. George," which was carried by King Henry VII at Bosworth. It indicates, too, that the standard, in its military usage, had departed from the old heraldic pattern.

(c) A swallow-tailed flag, fringed and charged with a crowned lion passant guardant between four fleur-de-lys. This is almost certainly a guidon. The diary of the siege from a "Culton" MS. in the British Museum mentions "evry bande (i.e., infantry unit) in ordre havynge his banner displayed and the bandes of horse-men wt their guydons." In the picture of the "Departure of King Henry VIII from Calais," there is a large force of cavalry carrying swallow-tailed guidons charged with the red cross. The guidon of St. George was thus, probably, the normal cavalry pattern; whilst that carried by the Gentlemen Pensioners was peculiar to them as the King's bodyguard.

(d) A swallow-tailed pennon charged with the Cross of St. George.

Thomas Audley, who was Provost Marshal of Guisnes under King Henry VIII, and later Lieutenant of the Lower Town of Boulogne in 1544, wrote a *Treatise on the Art of Warre* in about 1550. He treats of the flags carried by cavalry as follows:—

"Likewise for your standard on horsebacke cause every standard to have so many men Atarmes unbarbed and so many Lyghthorsemen. . . . And if you have light horses to every standard as me thinkethe, then you must have for your light horses a guydon, for if you send out your horsemen to do any enterprise and send not forth your whole band then maye you in no wise send forth your standard; for if a standard be overthrown, it is accompted a great dishonour. But if a guydon be overthrown it is accompted in no manner no dishonour at all. For commonlie the guydon goeth forthe with small numbers. . . . It hath been used of old tyme, that if one hundred men Atarmes were furnished with V horses (i.e., five horses each), then they had a standard, a guydon, and a cornet or pennon. And if the band were too fewe for the guydon to go forthe withall, then

the cornet or pennon should go forthe; for it is less honore to loose a pennon than a guydon. And a cornet is used to be borne before a chyefe chaptayne and also before the High Marshall to thintent that all souldiers may see where theye be to advertise with spede, with all neadefulle thinges and busynes."

Thus it would appear that cavalry had carried standards, guidons, and pennons for many years before the siege of Boulogne, and that the guidon was the flag, more particularly, of the light horse. (A pennon is, of course, still carried before a "chyefe chaptayne," even though on the bonnet of a car).

Thomas Audley describes the respective roles of men-at-arms and light horse as follows: "I would never wish that a man Atarmes should follow fast in the chase, but that all the men Atarmes should follow softly in a troupe together kepeing their horses in breath for the succour of the light horses."

The veneration with which the fighting flags of the cavalry and infantry were regarded is shown by the following passage from Thomas Audley's treatise: "And all the saide souldiers to be sworne to their standards and to obeye those constitucions which be made by the colonell and worthiest expert men of warre." In the *Statutes and Ordynances for the Warre* of 1544, it is laid down that "... every man kepe hym selfe in due order under the banner or penon of his lorde mayster or capitayne."

QUEEN ELIZABETH'S WARS

By the middle of the XVIth Century the company, replacing the older and very flexible "band," had become the basic infantry unit with an establishment of about 100. It was commanded by a captain and included two other officers, a lieutenant and an ensign (or ancient). The last mentioned carried the company Colour. In Queen Elizabeth's wars, regiments or battles (i.e., battalions) were made up when required of three or more companies. A usual number was five. A water colour in the Cotton MSS. in the British Museum shows the assault on the Castle of Enniskillen in 1594 by two battles; one comprising five companies (including his own) under command of Captain John Dowdall, the Governor; the other under command of Captain John Bingham consisting of his own and two other companies. Barry Colours appear in both battles and one of them, in the Governor's battle, has the St. George in the canton. In Captain Bingham's battle one of the Colours is the St. George. One company in each battle has a plain Colour without any device. We have here, perhaps, the genesis of a system which was described by Markham in the *Five Decades of Epistles of Warre*, mentioned above, as follows:—

General's Colour ... One colour throughout without any device.

Colonel General's and

Lord Marshall's Colour One colour throughout with a St. George in the canton one eighth of the area of the flag.

Colonel's Colour ... As above, but with the St. George one sixth of the area of the flag.

Captain's Colour ... The two principal tinctures of his coat of arms (a barry flag would answer this description) with the St. George in the canton of the same size as on the Colonel's Colour.

From other contemporary illustrations a banner of St. George seems generally to have been carried by higher commanders in the Elizabethan Wars.

In 1600, there was compiled a *Survey, or Muster, of the Armed and Trained Companies in London, 1588 and 1599*, which included descriptions of all the Colours carried by the companies. The blazon of the Colours is meant to be heraldic, but as many of the terms used are not heraldic and others are probably used incorrectly, it is difficult to interpret the compiler's meaning. However, with one or two exceptions, the Colours seem to have been barry, barry wavy (undulating bars) or lozengy (divided into diamonds of alternating colours). In many of these flags there were more than two colours. Most of them had the St. George in the canton or in the centre, or had a red cross overall. In 1588, the Trained Companies were organized into the North, South, East, and West Regiments of the City and the unregimented companies of the "Outlibertyes nere and about the City of London." The companies of the City regiments were each 150 strong and coincided as far as possible with the different "wardes." The companies from the outliberties varied in strength from 150 to 450 and were based on boroughs, parishes, streets, etc. By 1599, the strength had been much reduced due to the recession of the invasion scare. The regimental organization had been abolished and the City companies varied in strength from 125 to 375. The outliberties contingents had practically disappeared.

There is no indication of any regimental system in these Colours of the Trained Companies, and the varied and complicated patterns may have resulted from an attempt to adapt the barry colour system to produce a distinctive colour for each company. Barry flags had been introduced into the Navy in 1574, as ensigns, and in order to have a different ensign for each ship it had been found necessary to use more than two colours and to display the cross of St. George in different ways.

The chief development of the cavalry during the reign of Queen Elizabeth was the gradual replacement of the fully armoured heavy horse by "demi-lances" or light cavalry. These were organized in bands of approximately 50. According to contemporary illustrations they carried the swallow-tailed guidon charged with the red cross of St. George. By the end of Elizabeth's reign, the heavy horse had completely disappeared and, in accordance with normal cavalry development, the erstwhile light horse had become heavy. In *The Theorike and Practike of Modern Warres*, already mentioned, Robert Barrett defines the standards carried by the cavalry thus:—

"*Cornet*—The ensigne which is carried by the launciers.

"*Guidon*—The ensigne which is borne with the shot on horseback."

Cornet is the term which is applied at this period and for some time afterwards both to the standard and to the officer who carried it. The "launciers" have here become the heavy cavalry. The "shot on horseback," are, of course, the forerunners of the dragoons, and the guidon has become recognized as their appropriate flag.

THE EARLY XVIIITH CENTURY

Sometime during the first half of the XVIIth Century the barry type of infantry Colour was superseded by the system which is still used in a modified form by the regiments of the Brigade of Guards. The *Animadversions of War*, by Ward, published in 1639, states, in a chapter dealing with the "Office and Duty of a Colonel of a Regiment," "Hee ought to have all the Colours of his Regiment to be alike both in colour and in fashion to avoid confusion so that the soldiers may discern their owne Regiment from the other troopes, likewise every particulare captaine of his Regiment may have some small distinctions in their Colours; as their armes, or some emblem, or the like so that the one company may be discerned from the other." The rules as they were ultimately formed for infantry regiments were given by Captain Thomas Venn in his *Military Observations* of 1672. He says: "The Colonel's Colour, in the

first place, is of pure clean colour, without any mixture. The Lieutenant-Colonel's only with St. George's arms in the upper corner next the staff; the major's the same, but with a little stream blazant, and every captain with St. George's arms alone, but with so many spots or several devices as pertain to the dignity of their several places." These rules had already been adopted before the start of the Civil War, and the Colours of the City of London Trained Companies of 1635 conform to them. It is not known when the Barry Colours were superseded, but in 1625 the Navy adopted the red ensign with St. George in the canton, in replacement of the Barry type, and it may be that the very similar pattern of Army Colour was brought into use at the same time.

Apart from their shape, no regulation existed for cavalry flags at the start of the Civil War. Each captain on both sides raised his own troop and put on his standard such devices as he thought fit. The square standard was invariably used, however, for the heavy cavalry, and the guidon for dragoons. During the war some particular feature common to all troop standards was adopted in many cavalry regiments, particularly in the Parliamentary Army.

One hundred and fifty years after Bosworth the fighting flags of the Army had changed beyond all recognition; but the available evidence seems to indicate a gradual development, both in design and use, of the mediaeval standard, guidon, and banner, rather than the introduction of any new military flags.

MICHAEL FITTON, LIEUTENANT, HIS MAJESTY'S NAVY

By F. S. LOWE¹

HE was powerfully built, my great-grandfather, not very tall, but thick-set and of great strength, body and mind, and handsome in spite of his limp and his many scars. He came of a good family, for Sir Edward Fytton, the first baronet, died in 1579 and is buried in St. James's Church at Gawsworth, their ancestral home in Cheshire. In the church you may see the kneeling figures of Sir Edward and his lady with their ten children of whom the fifth, Lady Mary Fytton, had been lady-in-waiting to Queen Elizabeth the First and was credited with being the Dark Lady of the Sonnets. She it was who was once found dressed as a comely page in Leicester's suite and aroused great scandal. Later, a descendant, also Sir Edward Fytton, became Lord Chancellor of Ireland in the days of King James II, but lost all at the battle of the Boyne; and thus the Fittons fell on evil days, for they threw in their lot with the old and the young Pretenders, and as Jacobites fled to France, losing Gawsworth Hall to strangers.

"If you can make one heap of all your winnings
And risk it on one turn of pitch-and-toss,
And lose, and start again at your beginnings
And never breathe a word about your loss."²

It was in that spirit that young Michael Fitton, born in exile in 1766, came to England for his schooling, and at an early age won the approval and patronage of Lord Keppel, by whose influence he entered the Royal Navy as captain's servant at the age of 14, on board the *Vestal*, 28 (Captain George Keppel).

And so began the naval career of one who, like Ulysses, travelled far and endured much. From boyhood he took life as he found it, unswerving in his loyalty to King and Country, unshaken in his passion for the sea, careless of his own advancement so only that he might fear God and hammer the King's enemies.

Promotion came early to young Michael. On board the *Vestal* one day, whilst he was helping to furl the fore-topgallant sail, and under orders to watch closely the behaviour of an American vessel, he noticed what seemed to him to be a man fall overboard from the suspected ship. He at once reported this to Captain Keppel who instructed him to take to the jolly-boat and make a search. Fitton recovered from the sea not an American sailor (as he had thought) but a packet of papers which proved to contain a secret treaty of alliance between the United States and the Dutch. The American vessel was captured and was found to be carrying on board Mr. Laurens, ex-President of the Rebel Congress. The result of this discovery was an immediate declaration of war on Holland, and for young Fitton his promotion to midshipman.

As midshipman, he continued to serve with Captain Keppel in the Atlantic during the closing years of the war with the United States. On board the *Fortitude* he was aide-de-camp to the captain during the relief of Gibraltar, 1782. We next find him in 1793 rejoining Captain Keppel as master's mate of the *Defiance*, 74; and in 1796 he was appointed purser of the *Stork* sloop (Captain Richard Harrison Pearson), "on board of which vessel during the great mutiny of the *Nore* (1797), it was his fortune to be greatly instrumental to the preservation of order."

¹ Great-grandson of Lieutenant Michael Fitton.

² From *If* by Rudyard Kipling, by kind permission of his daughter, Mrs. George Bambridge.

But it was in the West Indies that Fitton made his name—though not, alas, his fortune. Towards the close of the century he had passed the examination for a commission and, in January, 1799, he was appointed acting lieutenant of the flagship *Abergavenny*, 54, commanding various tenders of that ship on the Jamaica station.

One can picture him in his smart uniform: dark blue coat with white collar and cuffs, white waistcoat and knee-breeches (or pantaloons, as they were called), white stockings, and black shoes with gilt buckles; smart gilt buttons on coat-pockets, collar, cuffs, waistcoat, and knee-breeches; a short sword hanging at his side. His hair would be shoulder-length and gathered in a bow at the back, and over all the black hat trimmed with gold lace and surmounted by a black cockade.

During the same year, 1799, acting Lieutenant Fitton played an important, if not indeed the chief, role in the adjudication of the American brig *Nancy* as prize. The war with America was, of course, over, but the Americans were not averse from picking up what profits they could in trade with His Majesty's enemies, the French, Spanish, and Dutch. Here is the story in Michael's own words:—

"The Commander-in-Chief on the Jamaica station, in the year 1799, ordered Lieut. Whyllie, in the *Sparrow* cutter, to cruize in the Mona Passage in company with the *Ferret*, tender of His Majesty's ship *Abergavenny*, under my command. We beat up hank for hank, and on weathering the east end dined together. On comparing notes, he had ten 6-pounders in the *Sparrow*, and I had six 3-pounders in the tender, with which we concluded (after dinner) that we could capture any sloop-of-war of the enemy, and even (before we parted) beat off and damnably hamper a frigate.

"We parted company the next night in chase, but joined again some days after, off Jacmel, the south side of St. Domingo. At the dawn, the *Sparrow* was about six miles in shore; by signal I asked him on board to breakfast. Whilst his boat was pulling on board, I seated myself on the taffrail, and observing a dead bullock floating at some distance, which the sharks were tearing and lashing to pieces, I had it towed alongside (we were then in the track of cattle-loaded vessels from Puerto Cavallo, Laquira, etc.), the sharks followed; one of them, much larger than the rest, I resolved to catch, and make a walking-stick of his back-bone.

"I baited the hook with a 4-lb. piece of beef; he rubbed himself against it, but seemed shy of taking: when the lesser ones approached, I drew away the bait. I changed it for a piece of pork, which at length he bolted. I played him with about 60 fathoms of line; when exhausted, I had him hoisted in, and directed some of the men to open the stomach and take out the piece of pork, which could not be the worse—in doing which there was found a bundle of paper tied round with a string!

"I have to observe that the nature of the service I was then employed in did not require a mute and reverential deference from the seamen (I was never much disposed to exact it). When the sailor handed me the papers, with a queer look he said, 'A packet by G—, Sir! I hope it's from England: please your honour' (touching his hat), 'will you look if there's a letter for me—I should like to hear from my old sweetheart.'

"The papers were in a perfect state, except the envelope; they appeared to relate to a vessel's cargo, and a letter, dated at the island of Curaçoa, addressed to an enemy's port, had this commencement—'The bearer hereof, my good friend Mr. Christopher Schultz, supercargo of the American brig *Nancy*, will hand you this.' It then entered into a statement of mercantile concerns. My first idea was that the shark had come from Curaçoa; the next that the papers had been thrown overboard

by some honest neutral chased by one of His Majesty's cruisers. I therefore hailed the man at the mast-head, and directed him to keep a bright look out ; to which he replied, ' There's nothing in sight, Sir, but the *Sparrow* cutter in shore, and her boat pulling on board.' ' Well you mind and keep a bright look out and remember the bottle of rum, the dollar, and day's leave on shore.' I always liked to reward my men so I gave it for every strange sail that proved to be an enemy and in case of gross neglect, which seldom happened, I gave them something else and yet my men were much attached from the thorough conviction that I would serve out my own brother in the same way never making (as sailors say) ' fish of one and flesh of another.'

" When Lieut. Whylie arrived on board, he said—but I will first describe him. Lieutenant Hugh Whylie was one of the old school—a perfect seaman, brave of course—yard-arm to yard-arm was his maxim—who had, like myself, waddled to the water as soon as out of the shell ; he had finished his education from books scattered on the rudder-head, to him equally authentic and erudite, such as Homer's *Iliad* and *Hudibras*, *Jack the Giant Killer*, *Pilgrim's Progress*, etc. In religion, he thought a short prayer, well said, better than a life monastic. He was withal a great admirer of the fair sex, whether black or white ; and furthermore, the West Indies suited him exactly, it being a ' bra country where ye are aye drinking and aye dry.' Alas ! Poor Whylie. He was a good-hearted fellow ; many a cruise we have had together—I shall not look upon his like again !

" When he arrived on board he said—but I had better give you the dialogue :—

" *Lieutenant Whylie* : ' What a devil of a long pull you have given me this morning, and not a breath of air out of the heavens. Come, is breakfast ready—no banyan day I hope ? '

" *Fitton* : ' Well, Whylie, my boy, what luck have you had since we parted ? '

" *Wylie* : ' Why, I have taken a French schooner, a Dutch schooner, and I have detained on suspicion an American brig.' On his looking round and seeing the shark, he said : ' Why do you dirty your decks with those cursed animals, you'll be a boy all your lifetime ? '

" *Fitton* : ' Tell me, Whylie, was the American brig you detained named *Nancy* ? '

" *Wylie* : ' Yes, her name was *Nancy* ; you have not met her I suppose ? '

" *Fitton* : ' No, I have not.'

" *Wylie* : ' Then why did you ask me if the brig's name was *Nancy* ? '

" *Fitton* : ' Was there not a supercargo on board called Christopher Schultz of Baltimore ? '

" *Wylie* : ' Yes, his name was Skoolts or Schultz, or some d—— Dutch name or other : why, you must have spoke her ? '

" *Fitton* : ' No I have not, I never saw her.'

" *Wylie* : ' Then how the devil came you to know I had detained the brig *Nancy*, Christopher Schultz supercargo ? '

" *Fitton* : ' The shark you see lying there has brought me full information of your brig, and those papers you see spread out to dry are the papers of your brig *Nancy*.'

" *Wylie* : ' There's a lie somewhere, Fitton, not far off, for I sealed all her papers up and gave them in charge of the prize-master, when I sent the brig away.'

"Fitton: 'The papers delivered to you by the master when you overhauled her you have of course sent away with the vessel, but her true papers that prove the owners to be enemies and not Americans are those you see drying on deck, brought to me by that shark you abuse me for catching.'

"Lieut. Whylie stared at me, at the shark, at the papers; then quickly descended the cabin-ladder, calling out 'Breakfast, ho!—none of your tricks upon travellers; none of your gumption, Fitton!'

"By the time we had breakfasted, the sea-breeze came down, two strange sail hove in sight, and away we both started in chase, and parted company. On my return into Port Royal, I deposited the papers in the Admiralty Court, and sent the shark's jaws with this inscription—'Lieut. Fitton recommends these jaws for a collar for neutrals to swear through.'

"On Lieut. Whylie's return, he found the *Nancy* condemned to him as a prize, by the recovery of the true papers, leaving to Jonathan no resource in future but to swallow the papers himself."

The supplement is to the effect that "Admiral Sir George Seymour showed this narrative to King William IV who was much amused with it." The shark's jaws were in 1835 deposited by Mr. Iltid Nicholl, King's Proctor, Admiralty Court, in the United Service Museum—now the Museum of the Royal United Service Institution in Whitehall—where they are still on view. It should be added that the owners of the brig *Nancy* were Messrs. Deverhagen & Co., of Baltimore; that the cargo consisted of dry goods, provisions, and lumber; and that the papers recovered from the shark contained the following instructions, amongst others, from the owners to the supercargo, one Schultze, a German by birth, naturalized American:—

"Mr. C. Schultze will take his passage in the schooner *Triumph* for Curaçoa and, after his arrival there, will put his cargo in stores, dismiss the crew, and send back the captain with all the papers; he will get Dutch papers for the vessel (the *Nancy*) and cause himself to be naturalized a Dutch citizen."

On production of the true papers recovered from the shark the American captain and supercargo absconded, and the *Nancy* and her cargo were condemned as prize by the Vice-Admiralty Court, Kingston, Jamaica, on 24th November, 1799.

It was on board the *Abergavenny* that Fitton was twice severely injured, once during a violent tornado when he fell down the hatchway upon a bundle of iron hoops, fracturing his left knee and dreadfully lacerating his face, and again during an action with a privateer, when a gun parted its breeching and fell on him, smashing his right ankle. The official account proceeds:—"Although the latter accident occurred to him in the execution of his duty, he never received the slightest compensation." Indeed, although he won prize-money from time to time, he seems to have spent it freely and generously in the cause for which Britain was fighting. It is recorded, for example, that he spent £80 from his own purse in procuring intelligence which led to the capture of four vessels in the Gulf of Venezuela, and again £400 towards the purchase of the *Pitt* (12 guns and 54 men) into His Majesty's service.

In command of the *Active* (eight 12-pounders and 45 men), another of the tenders of the *Abergavenny*, Fitton attacked five or six French privateers lying under the walls of Fort Piscadero, and early in 1801, when he commanded a small worn-out felucca, carrying only one long 12-pounder on a traversing carriage and 44 men, he fell in with the Spanish guardacosta *Santa Maria Als Forano*, of six long 6-pounders, 10 swivels, and 60 men. The official account of the engagement

proceeds:—"This vessel, having suffered herself to be driven on shore on the island of Varus, was boarded and carried through the irresistible heroism of Mr. Fitton, who with his sword in his mouth, followed by the greater part of his crew similarly armed, plunged into the sea and swam to her."

When peace followed the signing of the Treaty of Amiens in March, 1802, Michael Fitton, who was then still acting lieutenant, "was sent home without either promotion or reward." But hostilities were recommenced in May, 1803, and he was then placed in command of the schooner *Gipsy* (10 guns and 45 men), tender to the *Hercule*, flag-ship, Jamaica station. His experience of service in the West Indies led to his appointment to direct the operations against Curaçoa. In the course of these operations Fort Piscadero was captured, and a detachment of men under Commodore Bligh dragged the *Gipsy's* guns up the neighbouring hill and threatened the town of Amsterdam, resulting in the capture of Curaçoa.

As a result of this success and of other exploits in which—as agreed by all the captains of the squadron—acting Lieutenant Fitton had displayed "both zeal and judgment," he was sent with despatches to the Commander-in-Chief, who confirmed him in the rank of lieutenant as from March, 1804.

In 1806, Lieutenant Fitton was given command of the *Pitt*, and on 26th October of that year—again to quote the official record—"he effected the capture, after an arduous chase of 67 hours, interspersed with several close and spirited actions, in the course of which the British had 8 men wounded, of *La Superbe*, of 14 guns and 94 men, one of the most formidable privateers that had for a long time infested the commerce of the West Indies. Although the zeal and perseverance, the very gallant conduct and superior professional abilities, again displayed by Lieut. Fitton on this occasion, were officially reported by the Commander-in-Chief, he was, nevertheless—after having further captured *Le Fon Fon* privateer, of 1 gun and 43 men, and a Spanish armed schooner, the *Abija*—superseded, not, as observed by Mr. James in his *Naval History*, to be promoted to the rank of commander, but to be turned adrift as an unemployed lieutenant. All he got was the thanks of the Admiralty and a sword from the Patriotic Society valued at £50."

During his service in the West Indies, Fitton had captured "upwards of 40 sail of vessels, many of them privateers, but with little benefit to himself, from the circumstance of his having been so long in command of a tender, and only sharing in consequence with the officers on board the flag-ship." He served again with distinction during the years 1811-1815 in the Channel and Baltic stations, in command of the gun-brigs *Archer* and *Cracker*.

And so concludes this tale of a great-grandfather. A man of great courage, singular navigational skill and fighting qualities, beloved by his men, loyal to the core, Michael Fitton found no further employment during the long days of peace which followed the victory of Waterloo, save only the usual three-year period when appointed to the Ordinary at Plymouth, 1831-1834. In April, 1835, he was admitted as a pensioner into Greenwich Hospital where he died on 31st December, 1852.

Of such was, and is, the Royal Navy.

PROMISE UNFULFILLED

By MAJOR REGINALD HARGREAVES, M.C.

"For all sad words of tongue and pen,

The saddest are these :—it might have been."—MAUD MULLER

FEW things are more melancholy to contemplate than the withering of early promise, nipped in the bud ere the high hopes originally aroused have been given the chance to blossom into maturity. And in no vocation more than the military is early promise so liable to cruel and premature blight. The incidence of death or injury at the hands of the enemy, inseparable from the very nature of the soldier's calling ; the scope for mischance and error which progressively accompanies each ascending step on the ladder of promotion ; and, last but not most certainly not least, the malignant political hostility to which the professional man of deeds is too often subjected by the professional man of words ; all these trip-wires of calamity lurk in wait to arrest the fighting-man's aspiring progress, to rob him of the full measure of that military stature to which otherwise he might so rightfully have attained. Naturally enough, hostile action constitutes the greatest hazard.

It was a chance shot amidst the hurly-burly of Ticonderoga in 1758, for instance, which struck down that youthful but brilliantly promising soldier, George Augustus, Viscount Howe. And in so doing it robbed a rapidly expanding empire of a servant who had already done much, and might well have done infinitely more, towards its steady enlargement and sound consolidation.

Eldest son of the 2nd Viscount Howe, sometime Governor of Barbados, George Augustus Howe had arrived in North America with his Regiment—the 55th Foot (2nd battalion, The Border Regiment)—in 1757. His military training had, of course, been entirely on the stiff, inelastic European model, the god of whose idolatry was "that damned old snapping-turtle of a drill serjeant", Frederick the Great of Prussia. But scarcely had Howe filled his lungs with Canadian air before realization was forcibly borne in upon him that methods which were applicable enough to the rigid, set-to-partners, formalized encounters of the Old World, were singularly inappropriate to the catch-and-catch-can, bush-whacking, and flexible forest warfare of the New.

Hanging his gleaming 'regimentals' on the nearest nail, my lord Viscount promptly donned the homespun garb of a provincial irregular. The next step was to head for the wilderness, in company with that very odd character Ranger Rogers, and other masters of Indian fighting, and there apply himself to the task of re-learning his business all over again at first hand. It was a liberal and enlightening experience, but Howe proved himself an apt and willing pupil and the results of his rough schooling were not long in making themselves manifest.

With Louisburg fallen to Amherst and his combined forces of provincials and British Regulars, Abercrombie,¹ the general entrusted with the command of the operations designed finally to expel the French from Canada, determined on a drive over Lakes George and Champlain to clear the approaches to Montreal. The subjugation of that enemy stronghold itself formed the expedition's ultimate

¹ Major-General James Abercrombie ; not to be confused with General Sir Ralph Abercromby, victor of the battle of Aboukir in 1801.

objective. With this project in the making, Pitt, with a military prescience not usually to be associated with him, had appointed Howe chief of staff to Abercrombie, with the idea of making good the defects the minister only too justifiably suspected in the man he had selected for command.

With the troops concentrating below Albany, Howe threw himself into the task of training them for their coming venture with a zestful resource which was as unorthodox as it was eminently successful. Jettisoning all preconceived and outmoded standards, he initiated methods of scouting and open-order fighting which were not to see full reproduction till the days of Sir John Moore's camp at Shorncliffe. At the same time he strove to adapt the dress and equipment of his men to the peculiar type of warfare to which they would presently be committed. Powder and pipeclay were promptly thrown into the discard, together with all useless encumbrances; the men's hair was shorn as ruthlessly as the skirts of their coats were cut away; while comfortable and intensely practical 'leather stockings' replaced the constrictive and easily-soaked cloth gaiters on their legs. Rifle barrels were carefully browned to subdue their treacherous glitter, and the empty space in the haversacks was filled with sufficient meal to render every man independent of the commissary-waggons' vagaries for days on end. Not for nothing had the chief of staff designate imbibed Boquet's^a doctrine that "We must learn the art of war from the Indians themselves."

With so admirably trained and organized a force, Abercrombie should have been in a position to sweep all before him; and the mischance of his meeting costly disaster at Ticonderoga must very largely be attributed to the fact that in the very first onfall Howe fell with a bullet through his heart. Well may Sir John Fortescue have written that "with his death the whole soul of the army expired."

Recognized on all sides as a man of exceptional military capacity—James Wolfe described him as "the very best officer in the King's service"—with his receptive mind, his flexible adaptability, his skill in organization, and, even more important in the soldier, his genius for improvisation, his ability to condition training methods to the peculiarities of the campaign in which he was engaged, his tough fibre and inexhaustible resilience, his gay personal courage, and, above all, his power to inspire his followers with a devotion little short of worship, Howe's death, at the early age of 34, was nothing less than a national calamity. For had his brilliant promise not experienced such premature curtailment, events during the ensuing years of conflict in New England and the South, might well have taken on an altogether different complexion.

* * * * *

Two years later James Wolfe, then in his 33rd year, fell in the moment of victory—a distinctly belated victory!—on the Plains of Abraham. But it is very seriously open to debate if his premature demise impoverished British arms to the same extent as the loss of George Augustus Howe.

It is true that, on the records at least, Wolfe had enjoyed a more liberal experience of active service than had come the way of Abercrombie's versatile chief of staff. The hard-slogging rough-and-tumble of Dettingen, the bloody shambles of Culloden, staff duties during the abortive Rochefort expedition, the siege and capture of

^a Colonel of the 60th (Royal Americans), whose 5th Battalion in 1797 became, under Baron de Rottenburg, the first green-coated corps of marksmen to be borne on the British Establishment.

Louisburg—all this had been followed by the step to major-general's rank and the command of the highly important mission for the reduction of Quebec. Up to that point, industrious application and what seemed a genuine flair for the business of soldiering, combined with a faculty for inspiring devotion in the men he led in no way inferior to Howe's, had rendered the ascent of the ladder almost automatic.

But the prickly situation which had confronted him at Quebec had posed a problem which had nonplussed Wolfe to such a degree that his preliminary moves against the stronghold amounted to little more than two and a half months of bemused and costly fumbling. It is true that throughout the whole period of investment the frail little commander was a very sick man, suffering all the agonies of stone, and in such a mood of black despondency as to persuade him to voice a preference for almost any other way of life in the world—even a poet's—to that of a soldier's. But he had exhibited infinite patience; and there are times when patience is definitely a form of courage. Furthermore, the tired, numbed intellect had still been alert enough to apprehend the possibilities held out by the daring plan of attack eventually propounded by Admiral Saunders, and that prince of navigators, James Cook. And when the hour of action had arrived, the indomitable spirit had carried the fragile, pain-racked body forward into the fray, and kept unimpaired those mental faculties which could take advantage of the errors of his opponent to the point of victory.³

But Quebec was an action rather lost by the French than won by the British; while the genesis and conduct of the operations leading up to it were not of the kind stamped irrefragably with the sign-manual of a great captain.

Taking all things into consideration, it might well be advanced that Wolfe fell in an hour of a triumph that stood little likelihood of repetition. Promise which had bloomed with a precocity dangerously delusive, had withered prematurely on the stalk; and Wolfe was fortunate in his passing, since it may well have spared him the mortification attendant upon blighted hopes and maturity's failure to redeem the confident pledge of youth.

* * * * *

On the other hand, the untimely end inflicted on the dazzling career of Charles Stuart, favourite son of John, Earl of Bute, furnished a perfect example of the kind of shabby mischance to which the soldier is inevitably exposed under a system of governance wherein the professional is delivered at all points to the mercy—or malice—of the amateur.

Despite the odium which, through his unwavering support of the youthful 'Farmer George,' had accompanied Bute into his self-sought political exile, the earlier steps of his son's ascent of the military ladder had been conditioned simply and solely by the remarkable aptitude he had exhibited for the profession of his choice.

Arriving in North America on the heels of the sanguinary Bunker Hill engagement, his intelligent and unremitting attention to his duties, coupled with outstanding personal bravery, won him the command of a battalion⁴ at the early age of twenty-four. Command was a responsibility he assumed with unqualified success; while

³ In effect, Quebec was won because Montcalm lost his head and Wolfe did not. But from a strictly technical point of view, examination of the ground and the dispositions made by the respective commanders goes far to support the view that what both Wolfe and Montcalm really deserved was trial by court-martial.

⁴ The 26th, subsequently the Cameronians (Scottish Rifles).

his fortunate possession of an old head on young shoulders is witnessed by the fact that "during his last year at the seat of war"—in the November of 1799 his Regiment was ordered home—"he was treated with extraordinary confidence by generals and even admirals, who seem to have poured out their grievances and their differences to him in full and just reliance on his discretion."⁵

But if Stuart said nothing—save in the admirable letters to his father, fortunately preserved—like the sailor's parrot he indubitably thought the more. In the whole wretched history of muddle, incompetence, and moral cowardice which has characterized British political interference in military affairs, few campaigns have been more consistently hamstrung by Whitehall than that which cost the island people the magnificent territories of North America. In a position peculiarly adapted to seeing the military and political wheels go round, Stuart's reservations with regard to some of his seniors' mastery of their business were easily outmatched by his distrust and detestation of the whole brood of ministerial misfits ultimately responsible for mismanagement of national affairs. It was an instinctive revulsion, inherent in most men of reasonable integrity, wherein, however, lurked the seeds of his own eventual undoing.

In a campaign distinguished by indifferent generalship redeemed, when rare occasion offered, by the skill and enterprise of subordinate commanders, Stuart had been conspicuous even among men of such lively talent as Tarleton, Simcoe, Fergusson, and Rawdon. His further employment by any administration with the perspicuity to recognize a good man when they saw one would have appeared to have been assured.

Yet for 13 years the youthful veteran remained without a command. His was the heyday of patronage; and when purchase only extended to the command of a battalion, there were no general's epaulettes for bestowal upon a scion of the detested house of Bute. At one period during his unmerited relegation to the wilderness, indeed, Stuart had serious thoughts of doffing the red coat for good and always.

But with 1793 came the outbreak of the war with revolutionary France; and on the heels of the British discomfiture at Toulon and Paoli's appeal for help to throw off the Gallic yoke in Corsica, Charles Stuart arrived in the Mediterranean armed with a commission as lieutenant-general, and endowed with an overriding authority throughout the whole area of the *mare clausum* (save Gibraltar) which even the domineering Hood was in no position to dispute.

It was in no spirit of generosity that Stuart had been selected for the Mediterranean command. But both at Toulon and throughout the preliminary operations in Corsica, Hood had combined arrogance and inflexibility to such an insupportable degree as to provoke the resignation, in quick succession, of his two military coadjutors; with the consequence that the further enterprise with which the combined force had been entrusted continued to languish to the point of inanition. To all appearances, another Toulon was fairly in the making, unless a military commander could be found with whom the naval representative would condescend to co-operate. Such a command was obviously something of a Greek gift; and it was patently malice rather than goodwill which prompted its offer to the son of Lord Bute.

But with Stuart's appearance on the scene, all was changed. Even Hood's congenial crustiness was not proof against the new arrival's effortless and irresistible

⁵ Hon. Sir John Fortescue.

charm ; while in Captain Horatio Nelson, the senior naval officer with whom he had most directly to collaborate, Stuart soon had a devotee on whose enthusiastic support he could rely with the fullest confidence.

With perfect dovetailing and the utmost goodwill between the Services, a combined operation for the reduction of the formidable fortress of Calvi was so swiftly and energetically put in hand that a little more than six weeks saw the British captors of the stronghold, despite the fact that the besieged enjoyed a distinct numerical superiority over the besiegers. Stuart's dispositions had been so masterly, indeed, that casualties through enemy action totalled a bare 100 ; while the pace at which operations had been conducted wrung from the admiring John Moore a comment which, in slightly different form, was to be re-employed to commemorate another noble deed of arms a little under a century and a half later : " Perhaps," he wrote, " there was never so much work done by so few men in the same space of time."

Throughout the whole adventure, Stuart had worked himself to the last ounce. So some small excuse for the Government's failure to employ him during the next three years might possibly have been found in his seriously damaged state of health. In the December of 1796, however, with Spain threatening the invasion of Portugal, the victor of Calvi was invested with the invidious task of leading a scratch force of British and a rabble of French *émigrés* to the support of a country which boasted three commanders-in-chief but nothing particularly discernible in the way of an army.

Endowed with one British cavalry regiment and three infantry battalions, so wanting in replacements as to total a bare 2,000 men, and encumbered by a rag-tag-and-bobtail of undisciplined *émigrés* whose chief concern was to do as little as possible for the pay they drew with the only punctuality they ever condescended to exhibit ; at the mercy of fatuous and inconsistent orders from the Portuguese authorities, which were only outmatched by the tangle of contradictory instructions, from half a dozen different Departments, which flowed out to him from Whitehall, Stuart's task was as unenviable as it was well-nigh impossible of fulfilment. Yet, if he could wither with icy sarcasm the more cretinous directives emanating from the British War Department—" I am determined to be guided by your instructions ", he wrote to ' Scotch Harry,'⁶ the first and perhaps the most egregious of all Secretaries of State for War, " so long as they are within reach of my comprehension "—with his Portuguese coadjutors he combined a magnetic charm with a diplomatic tact, reinforced by a quick forcefulness, which had not been matched since the days of the great Duke of Marlborough.

With the scantiest of means, but loyally supported by Lord St. Vincent and his invaluable warships, Portugal was placed in such a solid posture of defence that, with Stuart's recall to England in the June of 1798, all fear of successful invasion by any force at Spain's immediate command had vanished.

With the battle of the Nile again endowing England with the mastery of the Mediterranean, a project was put forward to wrest Minorca from the Spanish, with

⁶ Henry Dundas, subsequently Viscount Melville and Baron Dunira, one of those buccaneers of politics which the late XVIIIth and early XIXth Centuries threw up in such profusion. After an administrative career of accommodating proteanism and singular unenlightenment, he was impeached for " gross breach of duty " as Treasurer of the Navy ; public opinion continuing to hold him guilty of the charge despite the ingenuity displayed in contriving his official acquittal.

a view to its conversion into a British naval base, whence a grand assault on "the soft under-belly" of a Europe held in the thrall of the French might successfully be launched. Although well within the category of those 'operations of detachment' to which British Governments have always been so dangerously partial, there was considerably more justification for this particular venture than for the majority of its predecessors; and the command was by way of being considered something of a military plum. Yet with the conqueror of Corsica ready to their hand, Stuart's claim on gubernatorial consideration might well have been passed over had it not been so vehemently supported by St. Vincent—usually allergic to soldiers to the point of mania—whose high opinion of the Scotsman's all-round capabilities was on a par with the cordiality which had always marked their personal relationship.

In September, therefore, Stuart set sail from Lisbon in command of a force which, including the bluejackets who only too readily lent him every aid in their power, barely totalled 3,000. The two main enemy strongholds, Mahon and Ciudadela, 50 miles apart, were furnished with plenty of troops and guns, on call, to defend their walls. It was obvious, therefore, that those centres of resistance demanded primary attention. So, having seized a commanding height at Mercadel, whose occupation severed all communication between the enemy garrisons, Stuart—first ascertaining that the defence at Mahon had been dangerously stripped to strengthen that at Ciudadela—hustled the former into surrender without the firing of a single shot.

Turning without an instant's pause on the main enemy concentration in Ciudadela, by an amazing admixture of effrontery, guile, and assurance, Stuart brought about the bloodless surrender of this stronghold also, in what Fortescue describes as "the most glorious piece of bluff in the history of the Army." Five thousand hale and hearty antagonists laid down their arms to a force no more than three-fifths their strength; a contingent whose own casualties—mainly the outcome of fatigue begotten of the stupendous pace at which the whole affair had been conducted—could be numbered on the fingers of two hands.

Yet, ironically enough, in Stuart's brilliant conquest of Minorca lay the germ of his ultimate discomfiture. Resolutely refusing to be distracted by side issues, through thick and thin he affirmed it as axiomatic that France was, and would remain, the only enemy worthy of consideration. It followed that France, with her ever-extending and increasingly more vulnerable lines of communication, could—through England's mastery of the sea—be most successfully assailed along the 500 miles of Mediterranean coastline it was impossible for her to keep under proper guard; the ultimate objective being her frontier with Italy, at which point her defences were at their weakest. In effect, Stuart's plan in 1798 was to initiate in Italy that peninsular war which ten years later was to be prosecuted, under Wellington, in the peninsula of Spain. And who shall gainsay that the idea was absolutely sound; that, had it been adopted, ten years' wearisome and costly delay in the subjugation of 'the Corsican Ogre' might easily have been spared the world.

Such, at any rate, remained the theme of all Stuart's exhortations to the Government throughout his highly successful tenure of the command in Minorca. Moreover, Nelson's call for help in the protection of the feckless King and Queen of Naples, and the dash to Sicily it entailed, only served further to reinforce his oft-reiterated *credo*. It is little wonder that, being home on sick leave at the time of the British failure in North Holland of 1799, on being requested to draw up a scheme for the future prosecution of the war, he should have produced a plan of operations

designed to conquer France through the gaping back-door of the Mediterranean—a plan which, at the outset, met with a considerable degree of ministerial approval.

But the parliamentarian has yet to be born who can refrain from mischievous interference with a technical problem, for the proper apprehension of which he is as wanting in natural aptitude as he is deficient in proper training. By the time the Cabinet had meddled with and muddled with it, Stuart's taut, sagacious, rationalized, and properly-balanced plan of campaign had undergone such ignorant whittling down and perverse distortion as to be virtually inoperable. The last straw was applied to the whole lop-sided structure of responsibility with Dundas's instruction that, with Malta's recovery, the Knights should be restored to their erstwhile privileges, while the island itself should be handed over to the troops of the dubiously loyal and chronically instable Tsar of Russia.⁷

To this proviso the far-sighted Stuart objected in such unequivocal terms as to set Dundas snarling, "If our officers are to control our councils, there is an end of government." Since, under the prevailing system, the issue in dispute was on a matter reserved for ultimate Cabinet decision, technically 'Scotch Harry's' comment is not lightly to be set aside. But it can be advanced with no less cogency that if a Cabinet of civilians is not prepared, on a technical point, to be guided by the counsel of its chosen professional advisers, then, equally, there is an end to all responsible soldiering.

In short, never was a greater opportunity more wantonly thrown away than when Stuart's far-ranging project was jettisoned. And never was a soldier of more dazzling promise permitted to proceed, unhindered, into oblivion than when Charles Stuart unbuckled the sword he had worn with such infinite honour and cast it from him in disgust.

If he had yielded too hastily to that lofty and mettlesome temper, against whose over-sensitiveness his father had so often warned him, the grounds for his impulsive gesture are not far to seek. Nor is sympathy for them easy to withhold. Unrequited for years of devoted and distinguished service by anything but assignment to missions that had about them every quality of a forlorn hope; still without appreciation when his ungrateful labours were visited, not with the failure that might well have been anticipated for them, but with the most unqualified success, as a disinterested public servant of the loftiest integrity, no personal considerations could persuade him to open protestation.⁸ But to have the carefully matured professional opinion, that authority had solicited of him, contemptuously dismissed by one he esteemed as little more than a jumped-up, pettifogging, little scrub of a lawyer—that, at the end of his two decades of contumely and neglect, was more than he was ready to accept. Dignity—that supersensitive dignity of a high-bred Scottish nobleman—bade him withdraw into a privacy wherein an affront so galling stood no smallest chance of repetition.

Little more than a twelvemonth later, on the 25th of May, 1801, to be exact, Charles Stuart died—the full extent of his remarkable powers still awaiting chance of demonstration—at the early age of 48. And with his end there passed into the

⁷ As will be recalled, Russia subsequently ran true to form by 'ratting' on her former Allies, concluding a bargain with Napoleon, in the Treaty of Tilsit, which thoroughly justified Stuart's suspicions of her continued good intentions.

⁸ It was the opportunity for further service that he sought. Personal reward was so far from his thought, indeed, that it was only with the utmost difficulty that he was persuaded to accept the red ribbon of the Bath.

ewigheit one who, in Fortescue's sober judgment, "might well have performed the work later achieved by Wellington, not less brilliantly and thoroughly, and be now accounted the greatest British commander since Marlborough."

* * * * *

If Charles Stuart met his end ere real opportunity had been afforded him to exhibit the full measure of his quality, the same may be said, to a very large degree, of his one-time subordinate and life-long admirer—John Moore.

Coming under Stuart's admirable influence at the most formative period of his career, and blessed with much the same military aptitude, personal charm, and faculty of inspiring devotion in his followers as had distinguished his early commander, Moore's varied experience in the West Indies, in Holland, and under Abercromby in Egypt, had equipped him with an all-round, practical experience of soldiering which his native talent had rationalized to the very fullest. Moreover, he was not without influence in high places, a consideration never more important than during the period wherein his most important work was done.

In the April of 1808, as a coming man on whom considerable hope was founded, Moore was given the command of 10,000 troops earmarked for the support of the King of Sweden. As England's last remaining Ally, the Scandinavian monarch and his people were under threat of bitter attack by Russia, as an outcome of the procedure agreed to in the rogues-charter Treaty of Tilsit. But Moore had been sent overseas by a Ministry animated by little more than the vague idea that, in the existing posture of affairs, somebody really ought to go somewhere and somehow do something.

Arriving in Sweden, the Britisher's discovery that the man with whom he was supposed to collaborate was a dangerous lunatic, speedily persuaded him to withdraw the force he commanded and return with it to England. This move, unfortunately, had the inevitable effect of underlining the stark imbecility of those who had sent him northwards in the first place; a course of proceedings to which no ministerial body has been known to react other than churlishly—however frequently they are condemned to undergo the experience.

In consequence, Moore's stock dropped appreciably; and the command of the preliminary operations in the Iberian peninsula fell to a virtually unknown 'sepoy general,' Arthur Wellesley. The victory of Vimeiro, however, being virtually stultified by the infamous Convention of Cintra—to which Wellesley, *faute de mieux*, had set his hand—the rising star of the future conqueror of Waterloo was momentarily dimmed. And thus, see-saw fashion, it was a John Moore restored to favour, who led his men to the support of the Spanish revolt against the domination of the French.

With the inchoate conditions prevailing in the Spanish army and the tenuous nature of his own resources, Moore was faced with a task from which many men would have quailed. But as he must have heard stout-hearted Ralph Abercromby philosophically observe, on more than one occasion, "There are risks in a British warfare unknown in any other service"; and what he could accomplish unsupported Moore carried through with a dash and resolution which refused to palter with the fact that, as in Sweden, he had once more been sent out on a fool's errand from which it would be remarkably hard work to extricate even a tithe of the men under his command.

The withdrawal on Vigo and Corunna, over the inhospitable mountains of Galicia, would have tried the discipline of a much better trained army than the one that Moore deployed. But, ably supported by his subordinate leaders, for close on

14 miserable, desperate days, Moore held the body of the retreat together by sheer will-power and force of personality.

At last, with the towers of Corunna in sight, but the city's harbour still yawning for the transports to bear his weary men to safety, Moore turned to fight off the swarming French, whom time had afforded opportunity to come crowding at his heels. In the ensuing action, at perhaps the most critical moment of the fight, a chance shot from a French battery brought the British commander tumbling from his saddle with an injury it was plain to see was mortal.

Buried in a landward bastion of the citadel, there went with him into the shallow grave a question to which, now, we shall never know the answer: was Moore of the stuff of which the great captains of history are made, or was he no more than a soundly competent commander, with an especial faculty for training men?

Until he went to Spain, Moore had never commanded any considerable body of troops in action; for by the time he had gathered up the reins in Egypt, following Abercromby's death and Hutchinson's injury, active operations had virtually come to an end. At no time, prior to his appearance in Spain in 1808, had he led an offensive armament on the scale even of that employed by Wellesley in his Indian campaigns or at his battle at Vimeiro. Yet if Wellington was right in his affirmation that "the best test of a great general is to know when to retreat, and to dare to do it," then John Moore's qualification to rank among the illustrious few is not seriously to be questioned.

* * * * *

To the query raised by the premature death of 'Black Bob' Craufurd, as a major-general commanding the famous Light Division in the assault on Ciudad Rodrigo, it is not so difficult, perhaps, to suggest an answer.

In the field so early as the campaign of 1793, ill-luck dogged his military fortunes until, with his appointment to command the Light Brigade (as it then was) under Moore, an opportunity arose to exhibit his qualities, in peculiarly trying circumstances, which at no point found him wanting. A stern disciplinarian and as unsparing of himself as he was of his officers and men, Craufurd possessed to almost an extravagant degree that quality of robustness which Field-Marshal Viscount Wavell has designated as the essential quality in a leader. As much the soul of the Corunna rearguard as Ney was of that devoted band who held at bay the Cossacks swarming on the road from Moscow, Craufurd's promotion to divisional command was assured. And with such admirable material to work with as the "Light Bobs," whose nucleus had experienced the splendid training of Moore's camp at Shorncliffe, 'Black Bob's' discharge of the specialist functions with which he was entrusted earned him commendation even from so exacting a task-master as Wellington. That 'Old Hooky' was not without certain very specific reservations with regard to his subordinate is not to be denied. But he was the first wholeheartedly to admit that a better man than Craufurd for the charge of a rearguard or in command of an outpost line,⁹ was scarcely to be found.

But, the question is, did he possess potentialities for even greater service?

His tactical stroke which tumbled Ney's corps to ruin at Bussaco was clearly in the best vein of generalship. On the other hand, the unnecessary and extraordinarily

⁹ His feat, in 1810, of guarding, for five weary months, the long front of the Agueda with its 15 fords, against a force six times the strength of his own, was a classic example of how this grave responsibility should be carried out.

hazardous 'combat of the Coa' (July, 1810), as an exhibition of appalling amateurism, entirely warranted the censure with which Wellington was prompt to visit it.

Truth to tell, Craufurd was unpredictable and inconsequent to the point of danger; while his bitter tongue and flaring outbursts of ungovernable rage went far to undermine the respect—it never amounted to affection—in which he was normally held by the men who served him. No one can dispute Seymour Larpent's affirmation that "he was very clever and knowing in his profession"; but Napier's estimate of him, if a little extreme, can be taken as a pretty shrewd summary of both his qualities and defects. "At one time," wrote the historian of the Peninsular campaign, "he was all fire and intelligence, a master-spirit of war; at another, he would rush madly from blunder to blunder, raging in folly." Perhaps the zenith of his career was reached when he led his men at the grape-swept breach of Ciudad Rodrigo. Maybe, again, had fortune spared him, he would have lived on to achieve a career of modest distinction and solid worth such as crowned the life-work of the scarcely less competent and infinitely more dependable Harry Smith. Yet, once more, the answer to the enigma lies buried in six feet of Spanish earth.

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We have dealt with men whose names were things to conjure with; but the list has by no means reached exhaustion. What of the talented Channel Islander, Le Marchant, veteran of the campaigns of '93 and '94; prime sponsor of that Military College of Sandhurst of which he was the first, as he was easily the most outstanding, lieutenant-governor? Combining in an especial degree the theorist of the lecture room with the practical soldier in the field, he was a tower of strength to Wellington's somewhat under-exploited *arme blanche* of the Peninsular. Indeed, it was not until Stapleton Cotton's hand was strengthened by Le Marchant's assumption of the senior cavalry brigade's command, that the 'sepo general' could venture on the offensive employment of his Horse at all. At Salamanca, it was the Channel Islander's swift and resolute employment of his troops that restored a dangerous moment of confusion and triumphantly turned the scale in the momentarily wavering fortunes of the day. If it was with cries of victory ringing in his ears that John Gaspard Le Marchant went painfully to his death, no more untimely hour could ever have cut short "the bright promise of the early day."

And then again, what of the quiet, unobtrusive Lumley, whose brief but sparkling hour as a divisional commander was cruelly ended by a bout of sickness that sent him home, a broken man, in 1811? What of 'Honest Ned' Pakenham, so deeply beloved by officer and man alike, the trusted and successful leader of many a desperate enterprise, who was doomed to perish in the ill-advised and abortive expedition to New Orleans? And what—coming to later days—of General Charles Gordon, leader of the Chinese "Ever-Victorious Army," and victim of the thirsty Dervish spears that brought him low on the very eve of succour? For here was a soldier who, for all his wilfulness and eccentricities, had been esteemed as the only serious rival to Lord Wolseley, the remodeller of the British Army and regarded in his heyday as "England's only general"? What of John Gough, brilliant chief of staff to Haig's I Corps in the gruelling early days of 1914; killed by a haphazard ricochet bullet on the eve of his promotion to a divisional command which, in the opinion of many competent judges, would have led straight up the rungs to the very top of the ladder of success.

Nor does the long and saddening tale end there. What of 'Strafer' Gott, done to death by so casual a mischance at the very moment when opportunity had flung wide the door to proven merit? What of the unorthodox but brilliant Orde Wingate? A guerilla leader of infinite daring and resource, he might well have stabilized and matured into a field-commander to rank with the very best. And, come to that, what of Field-Marshal Lord Wavell (as he became)? Having demonstrated with superb aplomb the best way to make bricks without straw and win victories with little more than a token force, it was bitterly ironic that a petulant political wind should have back-watered him just when increasing strength in men and *matériel* would have enabled him to give an admiring world a further and far more substantial taste of his outstanding quality. *Tantaene animis coelestibus iras?* Always, it seems, there have been—and will be—men to be taken from us ere time has been given for their full stature to be revealed; men condemned by an inscrutable Fate to

" . . . keep the word of promise to our ear
And break it to our hope."

UNCONDITIONAL SURRENDER IN AUSTRIA

By LIEUT.-COLONEL OSWALD STEIN, D.S.O.

THE unconditional surrender in May, 1945, at home as well as in the field, of virtually all the forces of the principal enemy in a major war was an event outside the previous experience of anyone then living, and as such carried with it a long train of problems which had to be solved without reference to earlier precedents.

Ranking high among these problems, both from a military and political point of view, was that of the immediate maintenance and ultimate disposal of the vast numbers of ex-enemy troops thrown upon our hands. To facilitate the solution of this problem, an assumption was made which many qualified judges deemed to have very dubious validity in law. It was argued that, by virtue of the unconditional nature of the surrender, the orders of the Allied Commander in any particular theatre or zone would form the only legal basis of the relationship to be established between victor and vanquished. From this basis it was further argued that, while enemy troops captured before the surrender should continue in their legal status as prisoners of war, the forces still in the field or in home garrisons at that time, should fall into a special category of "surrendered enemy personnel" (known in brief as S.E.P., or S.P.), and, as such, would not be entitled to claim, as of right, the conditions and treatment laid down by the Geneva Convention for prisoners of war.

In practice, this distinction acted both ways, in some respects working in favour of the surrendered forces and in other cases against them. For instance, it is laid down in the Convention, and is the universal practice, that prisoners of war shall be fed on the same standard as the troops of the capturing Power and shall be entitled to be paid, or credited with, the pay of their rank (such payments to be refunded by the prisoners' own country after the conclusion of peace). In the case of S.E.P., however, they were fed to a scale laid down by the Allied commander concerned, in accordance with availabilities, while at first no payment in cash or kind was made to them; but this last regulation was soon modified to permit of a small payment for work done, and certain canteen facilities were made available for them.

On the other hand, no attempt was made to hold the S.E.P. behind barbed wire in cages under armed guard. They were collected into camps, bivouacs, or billets under the disciplinary and administrative control of officers and non-commissioned officers of their own nationality, who themselves were under the orders of, and responsible to, specially appointed officers of the holding Power. All ranks were allowed out of camp at certain hours and were permitted, on a steadily increasing scale as time went on, to use and enjoy such local facilities for shopping and recreation as might be available; but they were liable to arrest and punishment if found beyond a given distance from their camp.

Another, and very important, point at which the treatment of S.E.P. diverged from that laid down for prisoners of war was that there was no obligation on the Allied commander to repatriate the former at the earliest possible moment after the cessation of hostilities and although, in fact, many were so repatriated at an early date, still more were retained for essential labour, especially in connection with the making good of damage caused by the action of their own forces.

There was one matter on which practice in the various zones tended to differ—namely in the treatment of nationals of a particular area repatriated into that area

from other theatres as prisoners of war. In Austria, at all events, the custom was that such persons would cease to enjoy prisoner of war privileges and status on entering the zone, but would be released at the earliest practicable moment.

Let us now consider the method by which these general principles were put into practice in the British zone of Austria, a fairly small and compact area consisting of Carinthia and (from about the middle of the Summer of 1945) of the whole of Styria, to which was also added later the British area of Vienna. The whole operation was controlled centrally in the early period by Headquarters, V Corps, and subsequently by Headquarters, B.T.A., into which Headquarters, Eighth Army, had converted itself on moving into Austria. The military division of the Allied Commission for Austria (British Element) was attached to V Corps for this purpose, but Headquarters, B.T.A., created a special A. Branch to deal with this problem under an A.A.G.(S.P.). The plan, both for Austria and Germany, was based on an A.F.H.Q. and a S.H.A.E.F. directive respectively, both of which originated in a scheme drawn up in London. In theory, both directives were alike, but as time went on, minor discrepancies arose between them.

On entering Austria, the British troops found two German Corps (LXVIII and LXIX), one German Cavalry Corps, parts of XXXIV Corps and 438th L. of C. Division, one Hungarian Corps, one Cossack Corps (attached to the German Army), a small irregular White Russian formation (also attached to the German Army for guard duties, etc.), and innumerable more or less disorganized bodies of troops and individual stragglers who had retreated into Carinthia before the Russian or the Yugoslav advance. In addition there were the staffs of various static administrative organizations and installations located in the zone, which, of course, had been an integral part of the German Reich during the period of the Anschluss. Altogether, some 34 nationalities were represented.

The German Cavalry Corps, located in the northern part of Carinthia, was fairly well up to strength in personnel, horses, and equipment, and had maintained a high standard of organization and discipline, not having been heavily engaged for some time. LXVIII Corps (headquarters at Feldkirchen, General Aulepp), and LXIX Corps (headquarters at St. Veit a/d Glan) were more disorganized, but their staffs still maintained fairly good control. The same applied to the Hungarian and Cossack Corps.

The two last-named corps were accompanied by a good number of their families, especially the Hungarians. It seemed as though nearly every soldier had brought out his wife, children, and parents. In addition, many were encumbered with such varied items of impedimenta as kitchen stoves, beds and other furniture, bicycles, poultry, dogs, cats, and even cows. Many also had a cart or carriage, often without a horse, tied on behind some army wagon. All the transport was horse-drawn and the animals were in the last stages of emaciation and fatigue. The Royal Veterinary Corps quickly took the matter in hand under the urgent prompting of the horse-loving Commander-in-Chief, Lieut.-General Sir Richard McCreery, and hundreds of the wretched animals were humanely slaughtered and the rest sent back to be properly fed and restored. Incidentally, the carcasses of the slaughtered horses were used to feed the S.E.P. in the interval between the exhaustion of the German reserves of fresh and iron rations and the organization of alternative supplies.

In order to cope with these hordes of S.E.P. three special units were organized in addition to the headquarters staff already referred to. These units, named Concentration Area Control Units and soon universally known as C.A.C.U.s., were

each under the command of a lieutenant-colonel, with one major in charge of documentation, discipline, discharge, and repatriation, etc., and a second major responsible for quartering, maintenance, and general administration. Each unit was allotted an area roughly corresponding to each of the divisional areas of the British divisions occupying the zone and was responsible for all the S.E.P. in its area.

The first thing to be done was to gather all the loose units and individuals, whether belonging to disrupted units or to local static installations, or being merely stragglers and fugitives. For this purpose a special corps was formed under the German General Noeldichen, who had been commanding the 438th L. of C. Division near Klagenfurt. At the same time, a start was made in building hutted camps to house those whose only shelter for a long time was a bivouac made of anything that came to hand. It was a race against time to get everyone into reasonable shelter before the onset of the rigorous Austrian Winter, especially as the services and available material of the Royal Engineers had to be shared with the thousands of displaced persons also clamouring for shelter. It was a nightmare for all concerned, but the job was done by the time the first frosts arrived.

During the second half of May, 1945, the military command in the U.S. zone of Germany commenced accepting any German troops we cared to send them, as they found themselves short of labour, and by the middle of June over 100,000 men had been repatriated by train without any form of documentation. They were followed by the G.Os.C. and most of the staffs of LXVIII and LXIX Corps, leaving Lieutenant-General Noeldichen in administrative control of all remaining Germans, while the Austrians were segregated from the Germans and placed under the administrative control of Lieutenant-General Aldrian, an Austrian officer who was given an all-Austrian staff. In the second half of May, moreover, the Cossack Corps was withdrawn from north-west Carinthia and handed over to the Russians on the Styrian border.

However, by mid-June, 1945, Commander V Corps realized that he was getting short of labour for the tasks he had to perform and ordered all repatriation of Germans to cease, and directed that a labour force should be formed from those remaining in the British zone. Units of specialist tradesmen and gangs of unskilled labour had already been improvised; the former, therefore, were handed over to the appropriate British service for employment (e.g., R.E., R.E.M.E., R.A.O.C., etc.), while the unskilled workers' gangs were attached to the Pioneer Corps under the direction of Deputy Director of Labour at Headquarters, B.T.A.

Meanwhile, the work of documentation in preparation for discharge or repatriation had been going ahead. At first, this documentation included classification by trades or occupations, as it was envisaged that personnel would be called forward for repatriation and discharge by trades according to requirements in the various countries or zones of domicile or original recruitment. An elaborate Holerith system had been prepared, but the use of this was dropped when it was found in practice that demand came for the most part quantitatively rather than qualitatively.

The final disposal of this mass of S.E.P. called for differing treatment, according to the category involved:—

- (a) Germans had to be sorted out by zones of origin and, when the time came for their repatriation, arrangements had to be made with the Allied authorities in the respective zones of Germany. Efforts were made to ensure that German S.E.P. with families in the British zone of Austria should be repatriated co-incidentally with their families.

(b) Austrians domiciled in the British zone were passed through local discharge centres and returned to civil life. But many thousands had demobilized themselves in Carinthia or had been dismissed to their homes by the Russians in Styria without any discharge procedure before we took over that land from our Allies. These had all to be sought out and formally discharged to enable them to regularize their position and obtain rations and clothing cards. In addition, nearly 100,000 Austrians were repatriated from other zones and theatres, and from overseas, and were discharged to their homes through our disbandment centres. About 15,000 Austrians were repatriated from the British zone to other zones of Austria.

(c) Hungarians were repatriated if willing to go home, and the balance were discharged in the British zone and given the status of displaced persons. About 15,000 troops (including their families) were voluntarily repatriated to Hungary.

(d) Russians. The Cossack Corps, having been Soviet citizens on 1st September, 1939, were compulsorily handed over to the U.S.S.R. The White Russian émigrés, if unwilling or unable to return to their country of domicile, were discharged and given D.P. status.

(e) Sudetens were given the option of volunteering to stay in Austria or of being deported to Bavaria. Those offering to stay were screened by the Austrian authorities and, if accepted, were discharged into civil life. Those not accepted were deported to Bavaria.

(f) All other nationalities were given the opportunity of voluntary repatriation, provided they were acceptable to the existing government of their country of origin. Those not so volunteering, or unacceptable to their governments, were discharged in the British zone and given D.P. status.

In addition to the above mentioned tasks, regulations had to be drafted and arrangements made with all other branches concerned for the maintenance, welfare, pay, discipline, and postal communications of the S.E.P. The documentation undertaken included the screening requirements of the various security organizations and war-crimes tribunals.

In spite of minor delays and local difficulties, the programme went steadily forward, and it was not until the early days of 1946 that the only serious hitch occurred in the shape of a quite unforeseen complication. The Russians brought forward a complaint in the military division of the Allied Council that the British element were re-arming German troops in the British zone and reforming them into military units, which secretly engaged in drill and military training. This allegation was hotly refuted by the British element, who agreed to a quadripartite commission of inspection visiting the British zone, provided that all the other zones should also be inspected. The U.S. and French elements readily gave their consent to this proposal and the Russians rather reluctantly fell into line. Needless to say, no sign of arms was found in any enemy camp in the British zone, but the Russians indicated that, while they did not doubt the good faith of their British Allies, they thought the Germans were hoodwinking us. They made two rather trivial requests. First, that no ex-enemy soldier should serve under the administrative control of an officer or non-commissioned officer under whom he had served in the *Wehrmacht*, and secondly, that all German badges of rank should be removed from the clothing of the S.E.P. Administrative difficulties prevented us from complying fully with the first of these requests, but all *Wehrmacht* rank-badges were removed and strips of plain cloth substituted to differentiate the leaders from the rank and file of the workers. All

Wehrmacht buttons and regimental insignia had already been removed from uniforms, and when the uniforms themselves wore out, they were replaced by old British battle-dress dyed a horrible shade of green.

The witch-hunt of the commission of inspection ended on a note of comedy. Apart from the mixed lot of old revolvers, automatics, and rifles issued to the regular police by order of the Allied Council, the only arms found by the Committee in enemy hands were held by certain units of so-called factory guards located in the Russian zone!

Although some S.E.P. labour was still retained in the British zone and several thousand Austrians were still due for repatriation from the U.K., from the U.S.A. and Canada in transit through the U.K., and from the Middle East, Russia, Yugoslavia and final clearings from other European zones, it was considered that the job was sufficiently advanced by the end of May, 1946, to permit of the disbandment of the A.(S.P.) branch at Headquarters, B.T.A., and of the three C.A.C.Us.

The statistical record at that date was as follows:—

Originally held as at 20th May, 1945.

Germans	...	...	...	...	...	137,530
Russians	...	...	...	...	...	62,700
(U.S.S.R. 58,000, White Russian émigrés 4,700)						
Yugoslavs	...	...	...	...	...	13,108
Hungarians	...	...	...	...	...	14,344
Austrians	...	...	...	...	...	7,553
Other nationalities	...	...	...	...	...	3,633
Total	...	...	...	...	...	238,868

To which must be added:

Austrians subsequently rounded up in Carinthia and discharged	...	...	...	...	...	21,000
Austrians subsequently rounded up in Styria and discharged	...	...	...	...	...	35,000
Austrians repatriated from other zones or theatres and discharged	...	...	...	...	...	90,000
Hungarians subsequently rounded up	...	...	...	...	...	16,000
Yugoslavs subsequently rounded up	...	...	...	...	...	1,000
Other nationalities subsequently rounded up	...	...	...	...	...	6,000
Total	...	...	...	...	...	169,000

Making a grand total handled 407,868

The foregoing account is probably a matter only of historical interest, but it might also be of value to those whose duty it may be to plan for similar circumstances in the future.

AN EARLY ATTEMPT AT COMBINED OPERATIONS

By FLIGHT LIEUTENANT C. C. SHAW CLOSE, M.A., R.A.F.

NOT for the first time in her history England, in 1694, faced the prospect of an invasion by France, who had seized the Low Countries in the course of the War of English Succession and had recently collected a menacing array of shipping in the Flanders and Pas de Calais ports. In order to nip any such attempt in the bud, the English Government therefore decided to strike first by destroying the assembled vessels by means of a sudden attack, and it may be of interest to trace the maritime aspect of the origin and development of this stroke.

Attacks from the sea on enemy held ports were no novelty to English seamen and, as far back as the XVIth Century, Drake had been the great master of this form of warfare. More recently, Captain Benbow (later to die of wounds as Vice-Admiral of the Blue in the West Indies) had been engaged on inshore attacks on St. Malo, Le Havre, and Dieppe. None of these operations had been very successful from a military point of view, although they had probably served a useful purpose in keeping the French alarmed and causing them to detain troops and guns all along the Channel coast. Despite his apparent lack of success, Benbow had emerged from these exploits with credit as the acknowledged authority on the marine aspect of such operations and when, on 6th August, 1694, instructions were issued to Lord Berkeley to sail with "machines and other vessels, prepared for the present expedition, to Dunkirk Coast and there endeavour to burn and destroy the enemy's ships lying in the roads, and to help Sir Martin Beckman and Mr. Meisters in their attempt to destroy the forts at the entrance of that harbour, as advised by a council of flag officers, and afterwards to further annoy the enemy"¹; Benbow is to be found as a prominent member of the expedition.

By 29th August, the force appears to have been collected and sailed, for on that day Cloudesley Shovell who, as Vice-Admiral of the Red, was Berkeley's deputy in command of the Fleet, wrote to Sir John Trenchard recommending Benbow as the most suitable man to take charge of the inshore party with the 'machines' and advise the engineer, Meister, who was to operate these 'machines,' or bomb-vessels. Admiral Shovell, in this letter, also reports that a conference had been held with the British and Dutch pilots regarding the feasibility of entering the roads of Dunkirk. As usual, the pilots had reported adversely, stating that it was not possible for even the smallest vessels to do so because of the danger of the sands and their lack of knowledge of the roadstead. However, the English and Dutch flag officers and captains were of the opinion that, if pilots could be obtained, they might "with hazard of their ships",² remove or destroy the enemy's ships by sailing in at the west channel through the road of Dunkirk and out at the east or north-east channel, without anchoring. They were also of the opinion that ten or 12 frigates and four fire-ships, with supporting sloops and brigantines, would be sufficient for the effort; but they judged it wholly impracticable to attempt to destroy the forts and harbours. Finally, they recommended that the great vessels, with the bomb-vessels, should be in the Downs "until her Majesty's pleasure be known,"³ but that

¹ Calendar of State Papers (Domestic), 1694-95. 6th August.

² Ibid., 29th August.

³ Queen Mary II was acting as sole sovereign at this date; William III being on the Continent.

a squadron of the smaller ships should be sent to lie off Gravelines to alarm the coasts and hinder ships from entering or leaving Dunkirk.

On 6th September, 1694, we find the Dutch engineer, Meisters, himself writing to the Duke of Shrewsbury who, like Trenchard, was a member of the 'Cabinet,' or inner council, of the sovereigns. Meisters claimed that an old Dutch captain, one Tol, would be prepared to take a ship drawing 24 feet of water in and out of Dunkirk roads on a spring tide, and further stated that this claim was confirmed by five other pilots he had brought from the Maas.⁴ Here we have an example of the enthusiastic technician, determined to remove all difficulties in the way of employing his favourite device. Apparently, by this time, Sir Martin Beckman had been recalled from the Continent and had joined the fleet in the Downs, for we find him writing to Shrewsbury from there on the following day to reinforce Meisters's views on the feasibility of attacking Dunkirk. He also apologized for the delay of five weeks caused by the conflicting reports of the pilots, lack of stores for the machine vessels, and, that perpetual source of anxiety, lack of men.

By now matters were obviously coming to a head for, on the following day, we have a letter from the King encouraging Meisters to persevere in his efforts, despite the lateness of the season and the fact that the French had now had wind of the attack and were strengthening their defences. Shovell was therefore ordered to execute the plan forthwith, provided Meisters's Flanders pilots would undertake the pilotage into Dunkirk. He was also instructed to act against Calais after the attempt against Dunkirk⁵; a move which Shovell himself had recommended to the Admiralty as the wish of the King; as conveyed to him privately by the King's personal secretary, Blathwayte.

From a letter of Shovell's, addressed to the Duke of Shrewsbury on 13th September, it appears that they arrived off the coast of Flanders on the night of Monday, 11th September. The following day Meisters reported that they could not carry the ships out at the east of Dunkirk with the wind as it was. Benbow and Shovell, however, agreed that no attack could be made in a northerly wind because it then became a lee shore. Accordingly they anchored and surveyed the channel, "Benbow finding the Narrow,"⁶ which had three and one half to seven fathoms at low water. Night then came on and a frigate, which lay in Dunkirk road, fired many guns at the boats which they were using to survey the channel. The boats were also fired upon from the Citadel, known as the Rysbank, which had recently been strengthened.⁷ On Wednesday, they again attempted to penetrate the port approaches with small vessels and boats, and Meisters ordered some machine vessels inshore. Shovell reported that the French men-of-war had hauled into the basin, away from the less well protected roadstead, and claimed that one of them had hoisted a white flag. He considered that their operations had prevented the enemy from sailing on that spring tide and had, therefore, delayed the projected invasion for at least a fortnight.

Subsequently, two of the Allied machines were blown up off the pierhead, but Shovell admitted this had little effect, since they already knew from intelligence

⁴ Ibid., 6th September.

⁵ Ibid., 7th, 8th, and 10th September.

⁶ Ibid., 13th September.

⁷ Reports of English spies are given on pp. 298-303 of State Papers (Domestic) for 1693-94.

reports that "the enemy had driven poles and sunk ships alongside the piers to prevent their damage."⁸

Shovell concluded his report on the action by stating that he was returning the machine vessels to the Downs, as Meisters had reported that his pilots would not carry the ships through the sounds to the east of Dunkirk as the spring tide had passed.

This abortive attempt on Dunkirk was to be followed by similar attacks on St. Malo and Granville, made by Benbow in 1695, and a final attempt on Calais in 1696. None of them could be pronounced successful; the greatest damage apparently being inflicted on Calais on 3rd April, 1696, when Benbow went inshore with a small covering force and, despite an injury to his leg, succeeded at a disproportionate cost, in setting one small vessel on fire and damaging the pier, slightly.⁹ Despite his persistent ill-luck, or misjudgment, Benbow's reputation does not seem to have suffered in any way and he was eventually promoted to command a squadron in the West Indies, where he fought an action which remains among the most discreditable in our naval annals. Discreditable, that is to say, to everyone except Benbow himself, whose personal heroism was beyond reproach and which cost him his life. The failure in the West Indies was due to lack of support by the individual ships of the English fleet, a fault for which their captains were court-martialled on the strength of Benbow's dying deposition.¹⁰ Trouble with his captains was not a new experience for Benbow and one of his subordinate commanders was court-martialled for some reason unstated as a result of the operations off St. Malo in September, 1693. Similarly, a nearly contemporary history hints that Benbow's captains were loath to support him when he was chasing Jean Bart's squadron in the North Sea in September, 1696.¹¹

One reason that can be deduced for Benbow's persistent difficulties with his subordinates is that he was an ex-merchant service officer and that men who had spent their lives in the King's service might tend to despise him as an upstart. It may, on the contrary, have been an overbearing mannerism or some other characteristic which antagonized his subordinates. But, whatever the cause of the trouble, it is clear that these difficulties alone do not account for the failure at Dunkirk. Here the main handicap appears to have been the inordinate delay between the inception of the operation and its execution, which led to a breach of security whereby the French were, in some measure, prepared for the attack. Furthermore, the assault was left until the close of the Summer season, which meant that the weather was more uncertain, with the chance of strong equinoctial gales further to deter the already over-cautious local pilots. It would, however, be a mistake to suppose that the lack of tangible material results was accepted as a fair measure of the success of the enterprise. The main object was to distract and delay, and if possible deter, a French attempt at invasion, and there is no reason to suppose that the attack on Dunkirk and other French ports at this time did not serve a useful purpose in that respect.

The operations against Dunkirk are, however, an interesting illustration of the almost complete lack of detailed planning which invariably accompanied all these

⁸ *Ibid.*, 13th September.

⁹ Burchett :—*Naval History*, p. 549, Quarto edition.

¹⁰ Public Record Office (Admiralty Secretary's Department, In-letters) Adm. 1. 5263 p. 53-57, dated 8th October, 1702.

¹¹ Burchett :—*Naval History*, p. 551, Quarto edition.

early efforts to attack enemy held territory by means of a seaborne assault. Thus, for example, the final decision to undertake the attack appears to have been taken on the strength of a private communication to the commander of the assault forces made to him by his sovereign's private secretary without any direct reference to the 'Cabinet' Council by the King. Furthermore, there was nothing strange in Meisters writing direct to a member of the Council, and the member acting on his advice. Such hole-in-the-corner methods were customary until the end of the Napoleonic wars, and were a consequent cause of friction between commanders-in-chief and their subordinates although, in this instance, there is no evidence to suppose that Shovell or Berkeley, the overall commander, resented Meisters's action. In all probability they regarded a mere engineer as beneath contempt, and this may help to explain Benbow's close association with Meisters for, if Benbow was indeed something of a pariah among his fellow naval officers in consequence of his merchant navy origins, he may well have had a fellow feeling for the engineer. For this, however, we have no direct evidence, and it must remain a matter for pure speculation.

THE DUKE OF YORK'S ROYAL MILITARY SCHOOL

By LIEUT.-COLONEL F. EVANS, M.B.E., T.D., M.A.(Cantab.).

THIS secondary boarding school for the sons of soldiers is one of the earliest examples of army concern with education. Founded by Royal Charter in 1801, first established through the efforts of Frederick, Duke of York, in Chelsea in 1803, and moved in 1909 to new premises built at Dover on similar lines to those of Christ's Hospital, Horsham, it has by now developed a tradition of its own.

The boys, some when they are nine, some when they are ten, but the majority when they are 11 years of age, are selected with a preference for the sons of soldiers killed in action or who have died in the Service, and also of soldiers with long and creditable records. Educational and medical tests and an interview form part of the selection procedure. The selection committee works on a points system and in such a manner as to ensure that the school of approximately 400 boys is educationally viable, and in practice to guarantee that at least twice as many pupils as would be provided by a random sample are capable of following a grammar school course.

A MULTILATERAL SCHOOL

Thus the main school has now become virtually multilateral, with a grammar school stream, a centre or technical stream, and a third stream of the secondary modern type. There is also a junior school of about 50 boys, divided into two forms, one for a nine years old age group and the other for a ten years old age group. The buildings include separate boarding houses, now under housemasters who are civilian teachers or officers of the Royal Army Education Corps, instead of being, as they were until quite recently, organized in companies under the charge of pensioned warrant officers of the Regular Army. This then fitted into the school plan of having a "regularly constituted battalion of boys modelled in every particular on the same lines as a battalion of the line." There are, as at present organized, seven houses: Marlborough, Wolfe, Clive, Wellington, Wolseley, Kitchener, and Haig; the last named being reserved for the junior boys.

The school was originally constructed with eight boarding houses, and one, Roberts, was destroyed by enemy action during the war. Roberts House premises have since been rebuilt to an improved pattern, involving greatly improved washing, bathing, and changing accommodation, additional rooms for private study and leisure time activities, and enlarged and improved housemaster's quarters. The other houses are being similarly modified in turn, and during this process the rebuilt Roberts House is being used as a transit house, occupied by whichever house happens to be under reconstruction. Three of the houses remain to be so modified and this programme of rebuilding is expected to end by September, 1955. The houses are arranged in chronological order from Marlborough to Haig, so that Roberts House is situated between Wolseley and Kitchener.

RECENT REORGANIZATION

Since the recent war, the school has been reorganized, so that the educational side is now heavily predominant in the school life. Yet at the same time the school maintains its historic military atmosphere and tradition. The priority now given to education ensures that only those military elements that have a genuine and relevant value are retained, and they are indeed a valuable stabilizing factor in a school with boys of a wide variety of ability and outlook. The military background is what all the boys have in common and it must therefore be used as the common factor. Today,

the change is mainly in attitude, and once the view is accepted that the school's task is the education of boys and not the training of soldiers, the military occasions and outlook fall into proper perspective.

The premises are well spaced about the 174-acre site high on the North Downs. Apart from the separate boarding houses and the orthodox classrooms, they include an assembly hall, a school chapel, a hospital, library, large indoor swimming bath, music room, two art rooms (also fitted for light crafts), a gymnasium (also fitted for stage and film shows and for badminton and basket ball), listening and viewing rooms, with specialized laboratories for physics, chemistry, and biology. There are smaller laboratories for advanced work.

CLUBS, SOCIETIES, AND SPORT

The school clubs and societies include the following: Art Club, Chess Club, Dramatic Society, French Club, Life Saving Class, Metalwork Club (this is a voluntary class for grammar school stream boys who do not take metalwork in school), Meteorological Society, Model Making Club, Music Club, Pets Club, Photographic Society, Radio-Telephony Club, Scientific Club, Shoemaking Club, Stamp Club, Tailoring Club, Telephone Club (using W.D. signals equipment), and Wireless Transmitters' Class (using 'walkie-talkie' sets).

There is a photographic dark room available for general school purposes as well as to supply the needs of the Photographic Society.

Music, especially military music, is naturally an important feature of the school work and activities. There is a military band of 60 boys, with about the same number of boys forming a second division of the band in training. There is a corps of drums and fifes of about the same number and there are two boys' choirs. A number of boys, as voluntary pupils, take piano or violin lessons as an optional extra for which they pay a moderate fee.

Games are, of course, well provided for and the spacious site enables many playing pitches to be in use at one time, and meets the needs of the many house matches as well as inter-school games. Situated in a predominantly Rugby area, the school has recently had to give up Association football, so that Rugby football and cricket are the national games which are now played. Teams from schools like Dover College, King's School, Canterbury, St. Lawrence College, Ramsgate, Kent College, Canterbury, and Chatham House, Ramsgate, are now taken on at both Rugby and cricket and the Duke of York's School is well able to give a good account of itself in such company.

GENERAL INFORMATION

It will be appropriate at this point to give some of the specific school regulations in respect of admission, and the organization of the most suitable courses open to the boys.

Registration of Candidates and Ages of Admission

Any boy is eligible for registration as a candidate for admission to the school who is the legitimate son of a warrant officer, non-commissioned officer, or man who is serving or has served in the Army, or of an officer who, prior to being commissioned, enlisted on a normal engagement in the Regular Army.

A boy may be registered as a candidate between the ages of eight and 11 and early registration is advisable, but, apart from certain entries between nine and 11 years, all entries are made annually in September, at the age of 11. To be considered for admission in any particular year a boy must be registered before 1st January of that year.

Expenses

Education and clothing at the school are provided free and there are no boarding fees. It is desirable that boys should be provided by their parents or guardians with some pocket money, but this should not exceed 2s. 6d. per week. The pocket money should be sent to the boy's housemaster, who will administer it on the boy's behalf. In the case of certain pensionable boys, pocket money up to 1s. 6d. a week is provided. Pocket money of 2s. 6d. a week is also provided for all boys when they reach the fifth form and this is raised to 4s. 0d. a week when they reach the sixth form.

For the normal school holidays the boys return to their parents or guardians, who are required to pay their fares from and to school, except in the case of certain pensionable boys whose fares are paid for them.

Organization of the School

The school is organized into :—

- (a) a junior school of approximately 50 boys aged nine and ten ;
- (b) a main school of approximately 400, which a boy normally enters at the age of 11.

The boys are accommodated in separate boarding houses, 54 boys in each house.

Education and Training (General)

Since the school's foundation, its education and training have been adjusted from time to time to conform with the educational and social developments of the nation while retaining an essential military character and tradition. The school is now organized on multilateral lines and provides a boy with either :—

- (a) a normal academic education of the grammar school type, or
- (b) a secondary education of a more practical type suitable to his aptitude and inclination.

Military training up to Combined Cadet Force standard is given and boys who show sufficient aptitude are expected to take their place in the band or drums, which form an essential and distinctive feature of the life of the school.

The normal time for a boy to leave the school used to be at the end of the school year in which he reaches the age of 15, and this is still normal for the boys in the secondary modern stream. Boys who leave the school at this age will be eligible to enter the Army by enlisting as boys. Of these, those who pass the necessary entrance examination may enter the Army Apprentices Schools, where they will receive pay and be taught a trade before passing to a regiment or corps as a tradesman.

Higher Education

A boy who is considered likely to benefit by further education may, however, be given the opportunity of staying at the school longer, and the majority of the boys in the grammar school and technical school streams now take this opportunity. A boy may stay,

- (a) for a further year and, if he comes up to expectations in that year,
- (b) until 18 or until he has completed the course of studies for which he has been selected.

It is thus open to a boy who shows promise of reaching the necessary educational standard and of developing powers of leadership to remain at the school until he is

of an age to qualify for admission to the Royal Military Academy, Sandhurst. For this Academy, examinations conducted by the Civil Service Commissioners are held three times yearly (normally in February, June, and October) for boys between the ages of 17½ and 18½. Those who obtain the necessary qualifying marks go before an interview board, and those selected are admitted to the Royal Military Academy, Sandhurst, after four months' service in the ranks.

Boys who reach a certain standard in the General Certificate of Education, taken at the school by all boys of suitable ability, may be exempted from the written examination for Sandhurst, but are still required to go before the interview board.

EDUCATIONAL AND SOCIAL AIMS

The multilateral development is of great interest. Today, the academic stream is well developed, with an upper and lower sixth form, each divided into arts and science courses. These boys, if they choose a Service career, take the Civil Service Commissioners' Navy, Army, and Air Force examination in their stride, and the successful candidates have a record of acceptance by the Regular Commissions Board for entry into the Royal Military Academy, Sandhurst, which compares favourably with any boarding school. In the General Certificate of Education the school is now doing very well. For example, in 1952, 44 candidates obtained between them 127 subject passes. In this year also the school obtained its first state scholarship. The results for 1953 are roughly comparable with those for 1952, although there was no state scholarship in that year.

This is not to forget the development of work in the other streams, where reorganization has proceeded with the twofold aim of liberalizing and, at the same time, upgrading the curriculum. The increased, though judicious, use of visual aids, the grouping of cognate subjects under a single master, the provision of a wide range of options, and the establishment of a five-year non-academic course have all played a part in this process, the object of which is to provide for the non-grammar school child, through more practical subjects, an educational challenge just as stimulating and exacting as that presented by the more abstract disciplines of the grammar school course.

The development of first-rate sixth form courses in the school has had the effect of raising standards all round, has helped the school to have confidence in its reorganized form, and enabled it to realize itself as an educational establishment second to none. The house organization of the school, its clubs and societies, and its sports and games bring unity into a society where a wide range of interest and abilities are present. The "all sorts and conditions of men" in the workaday world are repeated in this microcosm of the school. That is all to the good and the corporate spirit at the Duke of York's cannot be bettered anywhere.

ADMINISTRATION OF THE SCHOOL

The administration of the school is vested in a board of commissioners, who are responsible to the Army Council for all matters connected with the school. The board consists of the following commissioners:—The Paymaster-General (Chairman), the Permanent Under-Secretary of State for War, the Judge Advocate General, the Chaplain-General, a Director of Finance, the Director-General of Military Training, the Director of Army Education, the Director of Quartering, and the General Officer Commanding-in-Chief, Eastern Command, together with four commissioners specially appointed by the Under-Secretary of State for War.

BACKGROUND OF THE CHANGES

The development of the school from one with, mainly, a military organization into one functioning as a public school (yet retaining its essential military tradition), originated from a suggestion by Sir Robert Gordon-Finlayson, one of the school's special commissioners. As a result, a memorandum was produced in 1945 by Mr. (now Sir) Phillip Morris, the then Director-General of Army Education. This was referred to a committee consisting of the commissioners of the school, the D.G.A.E., and Sir Martin Roseveare, under the chairmanship of General Sir Robert D. Whigham. With minor variations, designed to confirm the commissioners' overriding discretion regarding entry and to safeguard the school's military tradition and character, the Whigham Report was accepted by the school commissioners in May, 1945, and confirmed in the same month by the Army Council.

These plans began to take effect on the return of the school to Dover in April, 1946, from its evacuation home in Branton, Devon, and it was indeed fortunate to have had at that time as Commandant, Colonel R. E. Barnwell, who served at the school from 1945 until this year. The appointment of a headmaster in January, 1949, consistent with these new developments, in the person of Lieut.-Colonel E. E. Lowe, R.A.E.C., was another very propitious one, since he brought to the school not only a wide experience of the Army and of civil and army education, but also an academical and educational background which made these changes possible and gave them validity.

SONS OF THE BRAVE

Secure in its tradition and fortunate, indeed, in its amenities, the Duke of York's School offers to the sons of soldiers, entirely free of cost to the parents, educational opportunities which, particularly with the developments of the last few years, entitle it to be regarded as the 'Army's own Public School.' The school's motto is "Sons of the Brave"; entry to it cannot be bought, except by service. There could be no prouder title to admission, no finer incentive, and no firmer bond among those who join.

THE INTERNATIONAL SITUATION¹

By A. K. CHESTERTON, M.C.

THE WESTERN WORLD

H-BOMB REVERBERATIONS

NOT for many years has there been such a ferment of activity in the field of international politics as during the last quarter. The explosion of a hydrogen-bomb that apparently generated more power than had been expected, while it brought no new factor into play, served to give sharper emphasis to the conflict of forces both internally and in the external struggle for power. As the latest hydrogen-bomb as yet has effected no political change, there is little that can usefully be written about it here, except perhaps to note the curious fact that its presentation to the peoples of the West was handled in such a way as to undermine rather than to bolster Western morale. Everywhere west of the iron curtain the nations were invited to consider, not the damage that could be done to an enemy, but their own extinction.

This was unlikely to have been adventitious. There has been from the first powerful support for the idea of a centralized control of all atomic-energy, from the mining of raw materials to the establishment of atomic power-plants and the making and storing of atom-bombs, and the drama of the latest Bikini test was no doubt considered excellent propaganda for such control. The fallacy in that propaganda, however, is demonstrated by the ability of the propagandists to make all flesh creep except Russian flesh. If there be any reality in the cold war, which is in essence a war of nerves, it seems distinctly peculiar that even Western advantages should be used by Western propagandists to affright the West.

AFTER BERLIN

The Berlin Conference, as had been foreseen, ended in complete failure. That was because there was in the attitude of neither side enough slack to permit of a compromise. There could have been no solution to the German problem which amounted to less than a complete victory for East or West. The only possible compromise solution would be for some great cataclysm to drown beneath the sea all the land between the Rhine and the Oder. As this is an improbable event the world has no alternative but to live with the problem until it is settled by some man-made upheaval either within or between nations or, failing that, until its existence is taken so much for granted as a permanent political phenomenon that it ceases to exist.

Meanwhile, both sides will palpably go their own ways. Indeed, one of the reasons why the West agreed to the staging of the Berlin Conference may have been the hope that inevitable failure would give momentum to its policy of incorporating Western German arms within the framework of Western defence. This hope has only been partially fulfilled. Great Britain, with the object of enabling the French Government to overcome opposition to the projected European Defence Community, which is the means devised to incorporate German troops in a European Army, defined her own proposed relationship with that body, but at the time of writing without having any marked effect on dissident opinion in France. Both extreme Right and extreme Left object to French participation in E.D.C. The Communists, supporting the Soviet line as always, wish to deprive the West of the powerful

¹As deduced from reports up to 20th April.

additional strength of twelve German divisions. Among the Gaullists there is also some reluctance to re-arm Germany, but their chief objection is to the surrender by France of further sovereignty over her own military means. It was this aspect of the integration of Western European forces which led Marshal Juin to decide at a late hour that he must speak against his country's commitment to E.D.C.

IS E.D.C. PRACTICABLE ?

Although the British Government has done its best to reassure the French people, the reason for the Gaullist opposition is likely to be well understood in London and even to receive a measure of sympathy. When the Foreign Secretary was asked in the House of Commons why Great Britain did not propose to become a full member of the Defence Community, he replied that it was part of the intention that it should lead to the federation of Europe and he felt the House would not be willing to join a federation. When the matter was raised on a previous occasion he said : " This is something we feel in our bones we cannot do." Beyond doubt Mr. Eden spoke for the overwhelming majority of his fellow-countrymen. On that account French hesitations cannot fail to be understood, although the British Government will doubtless continue to urge both E.D.C. and the plan for federation upon the French Government.

How far the participation of France in these internationalist schemes will prove practicable when so many of her most distinguished sons regard such a step as not far removed from treason remains to be seen. The force and passion of their opposition should not be underestimated. It was summed up in a very few words by General de Gaulle when he said : " No one has the right, whatever post he may hold, to speak in the name of the State when he has abandoned the country's independence and national sovereignty."

There seems to be every likelihood, therefore, even should there be full ratification, that the difficulties in the path of France's adherence to E.D.C. will lead finally to some looser kind of association, such as the integration of German forces in the North Atlantic Treaty Organization on much the same terms as those to which the other contributory nations have agreed.

BRITISH UNDERTAKING

Should this prediction prove correct, the British Government will be relieved of the necessity of carrying out the measures it has promised to take for the closer integration of British forces with those of her European neighbours. While internationalists in this Country would be disappointed at the non-fulfilment of their hopes, such feelings would probably not be shared by most people, including members of the Government. The truth is that the Channel has become so much a part of the national soul that there could never be any real enthusiasm for policies based on the assumption that it does not exist, any more than Americans could relish the idea that the Atlantic does not exist. Nobody can fail to have noted how far short of the British assurances to France was Washington's assurance. There is to be no integration of American troops in a European army.

Arrangements made by the British Government for associating this Country with that army are both precise and imprecise. The most precise are the clear-cut promises of an armoured division to serve under an E.D.C. corps commander as long as the Supreme Allied Commander, Europe, should desire, and of the distribution of R.A.F. units, now with the 2nd Allied Tactical Air Force in Germany, among European units in each air group of the North Atlantic Treaty Organization. These

units would be "controlled by a single integrated headquarters." As Great Britain will not be a member of E.D.C. it is presumed that British soldiers and airmen will still be allowed to wear British uniforms: the wisdom of their so doing should be obvious. But it is clear that in almost all else sovereignty over the detached British formations would be yielded to the Supreme Allied Commander.

EARNEST OF GOOD WILL

Britain's less precise promises are mainly of consultation with E.D.C., but there is also an undertaking to maintain a "fair share" of the forces needed for the joint defence of the North Atlantic Treaty area, an undertaking subsequently given on behalf of the United States by President Truman. The British declaration goes further than the American in that it makes this provision:—

"In order to promote the integration of the armed forces placed under the command of the Supreme Allied Commander, Europe, the United Kingdom agrees to the inclusion, if the Supreme Allied Commander, Europe, so requests, of British Army formations and Air Force units in European formations, and vice versa, where military considerations make this desirable and logistic considerations make it practicable. The United Kingdom will also join in developing a common policy in technical fields such as training, tactical doctrine, staff methods, logistics, and standardization of equipment."

It will be seen, therefore, that the promise of an armoured division and of R.A.F. units of the 2nd Tactical Air Force could be regarded as only an earnest of Britain's good intentions. The precedent established, that clause would permit the integration of all the British forces on the Continent—or, indeed, from anywhere else—in the European Army and Air Force.

SOVIET RESPONSES

Soviet reactions to these developments have been mild. There was only one observable counter-move—Russia's astonishing offer, in certain conditions, to join the North Atlantic Treaty Organization. This would seem to be one of her less explicable diplomatic moves. As N.A.T.O. was formed for the express purpose of defending Western civilization from any menace threatening from beyond the Elbe, the idea of Russia's furnishing armed forces to repel possible Russian aggression must strike the Western world—and, one would have felt, the Eastern world—as quaint.

Yet the Soviet leadership clearly had in mind something other than to excite laughter. Its motive may become clear later. If it was merely to confuse still further the issue in France it may have had a limited success, but scarcely enough, one would have thought, to compensate for giving the impression abroad that M. Molotov is losing grip.

THE FAR EAST

INDO-CHINA

The increased tempo of diplomatic activity in the West has been surpassed by an even faster pace in the Far East. It was to have been expected, once the Korean truce was signed, that there would be a shift of emphasis to Indo-China. There is ample evidence to suggest that Peking suddenly awoke to the realization that richer rewards were to be garnered by stepping-up its efforts to secure the gateway to South-East Asia than by contending for the bleak hill-tops of central Korea. As public opinion in the United States could scarcely be favourable to direct American

intervention in a second war in the Far East, the time may have seemed auspicious to the Chinese for the strengthening of Viet-Minh to force a decision in Indo-China.

What could not have been foreseen by Peking—it has even taken the West by surprise—was the swiftness of the American counter-move. The position during the last three months has been transformed to such an extent that Washington may almost be said to have replaced Paris as the authority responsible for the conduct of the war against Viet-Minh. That the State Department would make its voice increasingly heard became obvious as soon as it was known that the United States had agreed to shoulder 75 per cent. of the cost of the war, but that it would virtually take charge was an unexpected development, the wisdom of which many acute students of international affairs doubt.

PROBLEMS OF 'FACE'

The first hint of the 'new order' was the visit of the French Chief-of-Staff to President Eisenhower. Then the State Department began to force the pace. Mr. Foster Dulles made public his list of objectives in Indo-China, the first of which was the complete independence of the three Associated States "within the French Union", whatever that may mean. He followed this line in a succession of utterances, of which the following is typical:—

"Indo-China is important for many reasons. First—and always first—are the human values. About 30,000,000 people are seeking for themselves the dignity of self-government. Until a few years ago, they formed merely a French dependency. Now, their three political units—Vietnam, Laos, and Cambodia—are exercising much political independence within the French Union. Each of the three is now recognized by the United States and by more than thirty other nations. They signed the Japanese Peace Treaty with us. Their independence is not yet complete. But the French Government last July declared its intention to complete that independence, and negotiations to consummate that pledge are actively under way.

"The United States is watching this development with close attention and great sympathy. We do not forget that we were a colony that won its freedom. We have sponsored in the Philippines a conspicuously successful development of political independence. We feel a sense of kinship with those everywhere who yearn for freedom."

While the Secretary of State was delivering himself of such sentiments, the French were engaged in the fiercest battle of the Indo-China war.

Actions were suited to words. Mr. Dulles began to send for the envoys of Vietnam, Cambodia, and Laos without reference to the French Embassy in Washington. Then the 32,000 troops of religious sects—Caodists, Hoa Haos, and Binh Xuyens—which had been serving the French Union forces, were bought up by the Emperor Bao Dai with American money. Finally, the entire political direction of the war, in its relation to the larger conflict, was taken over by the United States. Readers with a close knowledge of the modern Far East will know to what extent, if any, post-war developments have diminished the importance of 'face.' The question is one to which the French authorities must be giving some anxious thought.

PEACE MOVES

Russia's willingness at Berlin to agree to a conference which would seek a general Far Eastern settlement may have derived from a consciousness of strength

rather than of weakness. The leaders of the Moscow-Peking axis perhaps reached the conclusion that French power in Indo-China is so undermined that it requires only the cessation of hostilities for the Associated States to fall into their lap. They certainly appear to have more to gain from a negotiated settlement which would remove the cohesive force of French military necessity than from the continuance of a struggle certain to demand progressive intervention from both sides.

The West, on the other hand, while genuinely anxious to explore the possibilities of peace, seeks an effective alternative should those possibilities not be fulfilled. As the failure of the Berlin Conference enabled the limelight to be thrown on E.D.C., and elicited from Great Britain and the United States declarations about their intentions towards European defence, so will the failure of the Geneva Conference—should it fail—give impetus to the work of completing the global strategy of the West.

PACIFIC COMMAND ?

When the scheme for a Pacific Treaty Organization, on the lines of N.A.T.O. was first put forward it evoked no enthusiasm from Great Britain or France and not very much from the United States, which was its country of origin. Since then, however, the general feeling has changed, with the result that when Mr. Foster Dulles revived the plan in April it had a better—though still not ecstatic—reception.

The method chosen by the Secretary of State lacked nothing in drama. Basing his case on the frenzied efforts of Viet-Minh at Dien Bien Phu to strengthen the Communist hand at Geneva, he issued public invitations to other interested Powers (a) to join with the United States in giving China what might have been regarded as a warning of outright war should she participate more directly in the Indo-China conflict, and (b) to form a South-East Asian and Western Pacific Command in the event of the failure of the Geneva Conference to secure peace. A few hours later, perhaps because the response was not as fervent as had been expected, Mr. Dulles flew to London and thence to Paris. As a result of his talk with Mr. Eden, the idea of issuing a formal warning to China was dropped, but—what amounted to much the same thing—the proposed new defence organization was approved in principle, and later received the endorsement of the French Government. As this survey is being made before the meeting at Geneva assembles, it would be idle to predict an outcome which may be known by the time the article appears in print. One should record, however, that the Russian response to these developments, unlike the response to developments in Europe, has been anything but mild. Typical of Soviet comment was *Pravda's* description of Mr. Dulles's activities as "a transparent slanderous provocation intended exclusively to poison the atmosphere on the eve of the Geneva conference and to intensify tension in international relations."

NEIGHBOURING REACTIONS

The excitements aroused by the political activities focused on Indo-China have naturally been intense on the periphery, with loud reverberations recorded as far away as Australia. Mr. R. G. Casey, Australian Minister of Foreign Affairs, gave a cautious welcome to the latest American initiative, but by the time he had reached Singapore on his flight to Geneva his support seemed to have become less qualified. In the Philippines the process seems to have been reversed, a strong initial endorsement of the Dulles Plan giving way to second thoughts at the prospect of becoming militarily involved in a Far Eastern conflict. The Thai Government was swift to express agreement with the scheme for joint action—Thailand since the war has become increasingly a United States sphere of influence—but since then there has been gathering support, not only in that country, for the view that Thai intervention,

except in the event of her territory's being invaded, would be a catastrophe. There is, besides, much underground Communist activity in the country which would require little to blaze into open insurrection.

The attitude of Burma and Indonesia is one of outright backing of Mr. Nehru's policy of peace at any price in Indo-China. To remove what the Burmese Government regarded as an intolerable provocation, the organization by United States secret agents of Chinese nationalist remnants has been dropped, no doubt on British advice, and a reception camp at Tachilek is now engaged in the work of sending Chiang Kai-shek's men to rejoin him in China. Considerable speculation had been caused by the news that the Chinese Communists have been heavily reinforcing their troops in Tibet. This is less likely to have relevance to developments in Indo-China than to be a counter to the grant of American military aid to Pakistan.

THE MIDDLE EAST

PERSIA

Mr. Harold E. Stassen, Director of the Foreign Operations Administration, has expressed his satisfaction at the extent to which it has been possible to grant American aid to Persia. Although the Persians are a volatile people, there seems little likelihood that any strong current of popular sympathy will again flow in the direction of the now imprisoned Dr. Moussadek. American aid, with the promise of the reopening of the oilfields, will probably ensure stable conditions within the foreseeable future.

Mr. Eden has outlined part of the proposed solution of the oil dispute. The oil is to be marketed by an international consortium, in which the Anglo-Iranian Company, which created the industry, is to have only a 40 per cent. interest. American companies are also to have a 40 per cent. interest, with the balance held by Royal Dutch and a French company. Representatives of these companies are now in Teheran negotiating with the Persian Government about the actual method of operating the industry. An American representative appears to be leading the delegation, and any idea that the solution of the management problem will help to restore British prestige in the Middle East is almost certainly illusory.

THE LEVANT

The game of musical chairs for executive power in Egypt has been played by General Neguib and Colonel Nasser with unremitting zeal throughout the quarter. At the moment of writing Colonel Nasser is 'in', with the General once again relegated to the position of presidential figurehead, but by the time this number of the JOURNAL appears General Neguib may have successfully reasserted his claim to the leadership. Meanwhile, the position is so unstable that Anglo-Egyptian talks on the future of the Canal base make no great appeal to either side. Sporadic attacks by thugs on British personnel in the zone continue.

Attention has been withdrawn from Egypt and focused on happenings on the Jordan-Israeli frontier, where terrorist attacks, with the inevitable reprisals, have created a ferment. At one period there was talk of outright war, but a host of complicating factors make hostilities improbable. Washington is still anxious to secure stability in the region through a general settlement, but London, with a keener sense of realism, regards an Israeli-Arab accord as quite out of the question at the present time and will be content if border skirmishes are kept to a minimum.

CORRESPONDENCE

(Correspondence is invited on subjects which have been dealt with in the JOURNAL, or which are of general interest to the Services. Correspondents are requested to put their views as concisely as possible, but publication of letters will be dependent on the space available in each number of the JOURNAL.—EDITOR.)

TRENCH GASCOIGNE SECOND PRIZE ESSAY, 1953

To the Editor of the R.U.S.I. JOURNAL.

SIR,—In the interests of accuracy, I venture to correct a small error in Major Webb's letter of 13th October, 1953, in the November issue,¹ in which he refers to the invasion by the Japanese during the recent war of a "very small part of what is now Pakistan".

The only portion of the sub-continent invaded by the Japanese consisted of the Native State of Manipur and the contiguous Naga Hills district, both of which are comprised within Assam, which is part of post-partition India, and not of Pakistan. The advance penetrated to a depth of some 150 miles or more before it was halted in an engagement at Mile 31 on the Dimapur–Imphal road, and culminated in the siege and relief of Kohima, and the subsequent driving out of the Japanese into Burma.

Further south, in the Arakan, although the Japanese advanced to the border, so far as I am aware, they nowhere invaded East Bengal, which indeed does form part of Pakistan.

J. E. REID,
Lieut.-Colonel.

23rd January, 1954.

N.A.T.O.

SIR,—The outstanding success of the N.A.T.O. in postponing or preventing war with Russia should lead us to the following conclusions:—

- (1) That a similar organization under the League of Nations could have prevented the 1939–45 War.
- (2) That the strengthening of the N.A.T.O. is our best immediate safeguard against attack.
- (3) That the development of a similar organization under the U.N.O., if Russia can be persuaded to co-operate, should eventually establish the reign of peace.

The creation of the N.A.T.O. was due largely to the initial drive of that far-seeing American soldier, General Eisenhower. The chiefs of the fighting Services have done more in the past five years to co-operate with other nations to prevent war than statesmen have been able to do in the past 50 years with their frequent and futile talk of disarmament.

R. FULLJAMES,
Group Captain (Retd.).

24th February, 1954.

1st THE ROYAL DRAGOONS²

SIR,—The year 1661 has always been accepted as the date on which the First, The Royal Dragoons were raised.

As everyone interested in such matters knows, The Royals is the oldest and senior regiment in the cavalry of the line.

Both Mr. C. T. Atkinson, in his history of the Regiment, and the present Commanding Officer of The Royals, in his letter to you just reproduced in the February JOURNAL, have made this fact clear beyond doubt.

¹ Pages 622 and 623.

² See JOURNAL for February, 1954, pp. 124 and 125.

I do not understand how the late Field-Marshal Lord Wolsley could refute this fact. It is not a matter which lies in the field of opinion but is a fact.

R. NORTH,
25th February, 1954. *Lieut.-Colonel.*

(Son of Sergeant the Hon. Roger North,
1st Royal Dragoons, 1885).

SIR,—I was interested to read Lieut.-Colonel P. Massey's letter in the February number of the R.U.S.I. JOURNAL, written in answer to one by Lieut.-Colonel A. G. Armstrong in the August issue, in reference to the unbroken continuity between The Tangier Horse and The Royal Dragoons. Of course Lieut.-Colonel Armstrong is entitled to his opinion in spite of irrefutable historical evidence to the contrary.

When he considers Lord Wolsley to be infallible, I am reminded of one unrecorded little episode which occurred when the Field-Marshal was C.-in-C. in Ireland. At that time The Royal Dragoons were quartered in Island Bridge Barracks, Dublin, and the Commanding Officer—Colonel Henry Tomkinson—was invited to dine one evening at the Royal Hospital. After dinner, the Field-Marshal started talking about the 1870 War and the Siege of Paris, laying down the law in a somewhat didactic manner and making some apocryphal remarks in regard to the siege. Colonel Tomkinson had the temerity to refute some of his statements; whereupon Lord Wolsley, somewhat taken aback, asked him rather sharply what he knew about it. Colonel Tomkinson replied that he was in a position to know because he had been in Paris himself during the siege, and was an eyewitness of the events in question.

After that, to do the great man justice, he was interested in hearing first-hand information in regard to the siege, which enabled him to correct his previous false impressions.

I have no doubt that, with the present evidence concerning The Royals before him, he would have accepted it and rectified his former dictum.

ERNEST MAKINS,
Brigadier-General.

8th April, 1954.

AIR STRATEGY

SIR,—Your correspondent Admiral Sir Reginald Ernle-Erle-Drax supports the contention that an 'antidote' could be found for the atomic type of weapon.³ But I am afraid that the evidence does not bear any hope of this optimistic view. At the present early stage in the development of air-delivered thermo-nuclear weapons, one bomber can carry a device with roughly 5,000,000 tons T.N.T. equivalent which produces a lethal range of some 9.2 miles. Thus, even at the moment, the whole scene of a tactical engagement could be engulfed in a single flash, which if directed at a city would destroy it completely. The next range of weapons to be evolved will be delivered by air-to-surface guided weapons, like the Bell B-63 Rascal, and the remote control operation would enable bombs of far higher yields to be delivered.

All the family of thermo-nuclear weapons are inefficient in the sense that only a fraction of their mass is converted into energy. No details are yet available of more efficient methods of producing heat other than the oblique reference to the "third" type of bomb mentioned by a U.S. Senator. (This is not, of course, the so-called cobalt bomb or the lithium type, which are part of the thermo-nuclear family.) It can, however, be said that there are certain processes which promise the total conversion of mass into energy. It is known, for instance, that under certain circumstances electrons and positrons will destroy each other, releasing energy in the process of annihilation.

Thus, we are in an age when, for all practical purposes, the strongest nations can produce a flash of any desired size. If some concentration were the size of a British county, a flash of this size would be produced. Or a flash the size of Wales could be produced where desired in another area.

³ See JOURNAL for February, 1954, pp. 125 and 126.

I suggest, therefore, that this situation makes its own air strategy. War in the accepted sense could not therefore break out since the air weapons are too powerful, and the future would resolve itself in a series of limited police actions. So long as the weapons of infinite destruction are poised by the major air forces, armies and navies could be very gradually reduced and adjusted to a level that would provide security against local civil disorders. This surely is the essence of the Dulles massive retaliation theory which Britain is committed to, whether she likes it or not.

I missed the admiral's first 12 points, but this seems the perspective in which to see his 13th point, where he says a new war would drag on for several years.

R. G. WORCESTER.

16th March, 1954.

SIR,—In a letter in the last number of the JOURNAL, Admiral Sir Reginald Ernle-Drax asks: "Is Air Marshal Saundby's New Doctrine sound or not? No airman has repudiated one word of it. But, as a guide for the future, I put down 12 general principles⁴ which are widely at variance with it, and no airman has said that he disapproves of any one of them!" In this letter he adds a 13th principle.

This is a fair enough challenge and, within the limits imposed by a letter, I will try to deal with Admiral Drax's 13 principles.

In the first place, the doctrine is neither new nor mine; while of course I cannot speak for the Air Staff, I think it is the doctrine in which they believe.

1. *The Object.* This is a re-statement of the classical doctrine which I was at pains to show is now out of date. I cannot repeat the whole argument here, and must therefore refer Admiral Drax to pages 31-34 of the JOURNAL for February, 1953.

2. *Security.* "It is essential to preserve from destruction . . . the British Isles." True, but "adequate" defence against modern jet bombers armed with 'A' and 'H' bombs simply does not exist. Perhaps we could destroy 10 per cent. or more of a given number of bombers attacking us, but nowadays that is useless. In a few days, even if we destroyed 10 or 20 per cent. of the attackers, we should be reduced to complete ruin. I suggest that we could hope to survive only if the combined efforts of the N.A.T.O. bombers were directed against the enemy's vital points, carrying the war into his skies and keeping it there. We did indeed carry the war into German skies from 1941 until the end, and had we possessed a powerful bomber force in 1939 and the will to use it properly, it would not have been necessary to fight the Battle of Britain. Because adequate air defence is unattainable, we cannot afford to "start heavily outnumbered", at least in long-range bomber forces.

3. *Initial Strategy.* This postulates that "in the early stages of the war our strategy must be defensive." This has been necessary in the past, because we have never been ready for war when it came. It will not work in future. It is unlikely, in these days, that any nation adopting a defensive policy in the air at the outset will ever be able to recover from it. What would have happened to us in 1940 if Hitler had possessed a large stock of 'A' bombs?

4. *Priorities.* "Priority may have to be given to any one of the three Services, for a limited time, according to the nature of the principal offensive that the enemy is directing against us." If this means priority in production, or even in manpower, such a priority must be in force for years to be effective, and, when switched, takes years to produce results. The rapid switching of production priorities does not produce weapons, but chaos. If, however, priority means having the first cut at a limited supply of fuel, ammunition, etc., then this principle can be applied.

5. *The R.A.F.* At any moment we "may have to divert air forces to help the Army or Navy to avert some major disaster." This may well be true, but we must be careful that, as the Chinese say, in "leaving the path to avoid a snake we do not walk

⁴ See JOURNAL for May, 1953, pp. 244-246.

into a man-eating tiger." In May, 1940, practically every admiral and general wanted to throw in the whole of our Air Force to avert the fall of France. Had we done so, we should not have saved France but lost our Air Force, leaving ourselves defenceless against invasion and German occupation.

6. *Air Superiority.* Air superiority is said to be "desirable, just as we should like to have total superiority on land or sea. But such a result may take years to achieve." The argument seems to be that the Air Force should therefore not *concentrate* on achieving it, but allow itself to be diverted to all sorts of ancillary and defensive tasks. Had we given way to such temptations in 1941-43, we could never have invaded Europe in 1944, or at any other time.

7. *The Army.* The idea here is that the Air Force must be ready to provide additional help to the Army to prevent an enemy overrunning Western Europe or any of our overseas bases, such as Singapore or Malta. My answer is that, until there is a large German army allied to the West, we cannot prevent the overrunning of Western Europe if the Communists are determined to do it, and that it is foolish to disperse our forces to safeguard bases in areas which are not strategically vital. Neither Singapore nor Malta were strategically vital in the last war.

8. *The Navy.* "The Navy must receive adequate support from the R.A.F. to prevent a major disaster at sea." Agreed, but a major disaster at sea nowadays can only mean a failure to safeguard our sea communications. That is a defensive commitment on which our lives depend, but, like all defensive commitments, it should have the minimum force allocated to it.

9. *Interdependence.* "Each of the three Services must be ready, in emergency, to give extra help to either of the others at very short notice." Agreed, provided that the Government decide, in accordance with their grand strategy, how the efforts of the three Services are to be co-ordinated.

10. *Versatility.* Agreed, provided that this does not mean continual diversions from the real aim to minor projects.

11. *Back area bombing.* It is alleged that the bombing of large industrial cities—centres of administration, production, and communications—is wrong, because "it does not pay." I will only say that in five months it defeated Japan, which surrendered with a large and confident army intact.

12. *Unanimity.* "It is of primary importance that the three Services should reach complete agreement about the main principles of our strategic doctrine." Agreed, and I hope to see it come about.

13. *Planning.* "Our plans for the next war must be laid on the assumption that it might take us one, two, or even three years to achieve final victory." There is a vast difference between planning for a war lasting one year and one lasting three years. But I agree that we must allow for the fact that it could take years to achieve final victory.

These principles were laid down in Admiral Sir Reginald Ernle-Erle-Drax's article by a representative of the Minister of Defence summing up as chairman at an imaginary inter-Service conference. He seems to have been an Elder Statesman, with no idea of the vast changes in the conduct of war which air power and 'A' and 'H' bombs have brought about. His summing-up would have been appropriate, if a trifle conservative, in 1924. But it seems to me, with the greatest respect, to have little relevance to the situation which we have to face, 30 years later, in 1954.

R. SAUNDBY,

Air Marshal.

4th April, 1954.

AIR NOTES

SIR,—I noticed in the February, 1954, edition of the *JOURNAL*, page 155, "United States, Anti-Aircraft Rocket's Success", that you printed some descriptive remarks which I feel I cannot allow to go uncorrected.

The Nike has two sets of delta fins, one set movable (guidance) and one set fixed (aerodynamic stability). The missile system is not beam-rider, as stated, but is a command guidance system which works on entirely different principles. I had the honour to train as an observer with the first Nike unit to be formed for the defence of the United States.

So much, in error, has been written in the papers and journals of both Great Britain and the United States about guided missiles that I felt I could not, bearing in mind the high reputation the JOURNAL has in both countries, allow the error to pass without bringing it to your notice.

E. N. MUMFORD,

Major, R.A.

5th April, 1954.

REVIEWS OF BOOKS

SIR,—In your issue for February, 1954,⁶ the following sentence appears in the review of *The Green Howards in Malaya, 1949 to 1952* :—

"This Battalion, during the three years of its active service in Malaya from October, 1949, to October, 1952, killed or captured a total of 103 Communist terrorists out of a grand total of less than 250 liquidated throughout the whole Federation during the same period."

In point of fact, according to my records here, the 1st Battalion, The Green Howards, operated in Malaya between 15th September, 1949, and 6th October, 1952. Throughout the whole Federation of Malaya during the same period, both months inclusive, 2,877 Communist terrorists were killed and 471 captured, giving a total of 3,348 eliminations other than surrenders. The surrenders during the same period amounted to 706.

G. W. R. TEMPLER,

General.

13th April, 1954.

NAVAL SIGNALS

SIR,—Of all the naval signals sent and received, how many have stuck in the memories of your readers?

I am hoping to collect and preserve in a book which I intend to illustrate a selection of the publishable ones that have stuck.

The only way to collect these is to ask your readers to jot down any signals they particularly remember, and their brief contexts, and send them to me. They need not necessarily be funny ones. The fact that they are lodged in anyone's memory makes them welcome to my collection.

J. E. BROOME,

Captain, R.N. (Retd.)

4, Sprimont Place, S.W.3.

18th April, 1954.

GENERAL SERVICE NOTES

NORTH ATLANTIC TREATY ORGANIZATION

SUPREME ALLIED COMMANDER, ATLANTIC.—Admiral Jerauld Wright, U.S. Navy, succeeded Admiral Lynde D. McCormick as Supreme Allied Commander, Atlantic, on 12th April.

EXERCISE OFF TURKEY.—A N.A.T.O. exercise took place in the Gulf of Iskenderun (Alexandretta) from 8th–12th February. Aircraft from the U.S. 6th Fleet, Turkish land and air forces of the Turkish Second and Third Armies, and several N.A.T.O. commanders, including Major-General Eaton, commander of the recently created 6th Allied Tactical Air Force, took part.

EXERCISE "SHIELD I."—This exercise, which took place in the Mediterranean area at the end of March, was designed to test simultaneously all air defence systems in that area. It provided national and other commands with an opportunity to exercise their forces, defending their respective areas, in co-ordination with other forces as part of an international air defence system co-ordinated through Headquarters, Air South, in Naples. The national forces which took part included the air defence facilities of France, Greece, Italy, Turkey, and the United Kingdom at Malta. Heavy bombers from England, Germany, and North Africa participated by flying over the exercise area and simulating hostile attacks against various targets. Exercise "Shield I" took place concurrently with a naval exercise ("Medflex A") in the Mediterranean.

GREAT BRITAIN

DEFENCE ESTIMATES, 1954-55

The Government's Defence Estimates for 1954-55, providing for a total gross expenditure of £1,639,900,000, or £3,140,000 more than the amount planned for 1953-54, were published as a White Paper on 18th February. The 1954-55 total included expenditure of £85,360,000 to be covered by U.S. aid; allowing for this, the net expenditure was £1,554,540,000.

Detailed estimates of expenditure were as follows:—

		Excluding receipts from U.S. Aid £ million		Including receipts from U.S. Aid £ million	
		1954-55	1953-54	1954-55	1953-54
Admiralty	...	367.00	364.50	353.00	329.50
War Office	...	561.00	581.00	535.00	526.00
Air Ministry	...	537.00	548.00	491.64	498.00
Ministry of Supply	...	151.00	123.75	151.00	123.75
Ministry of Defence	...	23.90	19.51	23.90	19.51
Total	...	1,639.90	1,636.76	1,554.54	1,496.76

Among the principal announcements made in the White Paper were that greater emphasis would be given to the R.A.F. in 1954-55; that delivery of atomic weapons to the forces had begun; and that the strength and efficiency of British forces on the Continent would be maintained.

Important details given in the White Paper are summarized below:—

Manpower. The estimated total strength of the forces at 1st April, 1954, and 1st April, 1955, compared with the actual strength at 1st April, 1953, was shown as follows:—

	1st April, 1954	1st April, 1955	1st April, 1953
Regulars	529,500	536,800	533,900
National Service men ...	302,100	283,500	312,800
Women	23,900	24,000	24,400

Total 855,500 844,300 871,100

The apportionment of the male Regular strength (officers and men) between the three Services was as follows:—

	1st April, 1954 (estimated)	1st April, 1955 (estimated)	1st April, 1953 (actual)
Royal Navy	121,700	119,200	133,700
Army	220,100	226,400	211,300
R.A.F.	187,700	191,200	188,900

Total 529,500 536,800 533,900

Regular Recruitment. The White Paper stressed that although the Regular strengths of the Services were expected to be maintained, and even slightly increased, in 1954–55, certain aspects of the question were “disquieting.” Each of the three Services had suffered “an appreciable decline” in 1953, as shown by the following table:—

	1952	1953	1954 (estimated)
Royal Navy	10,300	9,300	9,000
Army	53,200	42,700	40,000
R.A.F.	39,800	31,600	31,000

Total 103,300 83,600 80,000

The White Paper added: “There will have to be an improvement in all three Services in the numbers of men prolonging their current engagements if the increasing shortage of non-commissioned officers and skilled tradesmen is to be made good and the operational mobility and technical efficiency of the Services maintained. Inducements to men to prolong their service will be continued.”

National Service Requirements. The White Paper estimated the number of men available for call-up in 1954–55 at 199,000 (including those expected to sign on Regular engagements in lieu of performing National Service) to be allocated as follows: Royal Navy, 9,000; Army, 126,000; R.A.F., 60,000. The small margin of 4,000 would constitute a reserve against changes of requirements.

Reserve and Auxiliary Forces. Between 1st January, 1953, and 1st January, 1954, the size of the Reserve and Auxiliary Forces (including the National Service Reserve) had increased from 427,000 to about 571,000, and the numbers of reservists serving in the Reserve and Auxiliary Forces from 307,000 to 457,000.

Colonial Forces. The present strength of the Naval, Army, and Air Force units of the Colonial Forces was about 65,000, in addition to about 14,000 men locally enlisted in the Colonies but serving with U.K. units.

The Production Programme. The White Paper stated that about £650,000,000 would be provided for defence production in 1954–55, i.e., about the same as in 1953–54. No major changes had been planned for the programmes of any of the three Services.

The White Paper emphasized that it was probable that the Defence Services had never before been faced with “decisions of such extreme difficulty” as those facing them to-day in the field of research and development. The new weapons now being developed were “extremely complicated” and involved “the development of entirely new

techniques" before success in laboratory experiments could be "transformed into practical weapons for service use." The problem facing the Defence Services was, therefore, "how best to divide available funds between, on the one hand, improvements in current weapons and equipment and, on the other, research and development on new weapons."

In conclusion, the White Paper stated that £160,000,000 would be spent on defence research and development in 1954-55, indicating "the great importance which the Government attach to ensuring that our forces are, and will continue to be, equipped with weapons of the most modern character."

NAVY, ARMY, AND AIR FORCE RESERVES BILL

The Navy, Army, and Air Force Reserves Bill, intended to strengthen and improve the effectiveness of the Reserve, was enacted on 10th February. It provided: (1) that National Service men and National Service volunteers, on completion of their service under the National Service Acts, would remain members of the Reserve until 30th June, 1959, and be liable to recall in the event of a threat to, or an attack on, the United Kingdom, or of a national emergency; (2) that the liability of Class "Z" and "G" reservists to recall in a military emergency (hitherto without time-limit) should end at 45.

SELECTIVE IMPROVEMENTS IN THE PAY STRUCTURE OF THE SERVICES

A White Paper (Cmd. 9088, Stationery Office, 6d.) giving details of improvements in the Service pay structure was published on 2nd March, and summarized in the daily Press on 3rd March. These improvements became effective on 1st April.

It was stated that the main feature of the changes would be basic pay increases varying from 4s. to 7s. a day for officers (covering the range from naval lieutenants, army captains, and flight lieutenants with not less than four years' service, to naval captains, brigadiers, and air commodores, other than doctors, dentists, and chaplains who are being dealt with separately), and from 2s. to 4s. a day for certain other ranks. In addition, (a) length-of-service pay would be introduced in the Navy for able ratings and improved in the Army and R.A.F.; (b) special rates would be paid to certain highly skilled technicians; (c) tax-free bounties of up to £100 would be paid to other ranks extending their definite commitments for service with the Colours.

The White Paper stated that the Government were considering a revision of the present gratuity scheme for men of all three Services with between 10 and 22 years' service; this might involve some reductions in bounties paid to men with shorter service, but would not affect men now serving.

RETIRED OFFICERS' PENSIONS

The same White Paper (Cmd. 9088) which gave details of improvements in the Service pay structure explained that, from 1919 to 1931, both retired officers and retired civil servants had received pensions varying with the cost of living; that the abandonment of this system for civil servants had been later recommended by a Royal Commission; and that, when this recommendation was acted upon in 1935, it was also agreed to apply this decision to retired officers' pensions. Although the Government were not prepared to abandon the principle that public service pensions, once awarded, were not normally subject to change in either direction, they recognized that the operation of the sliding scale between the wars had, in fact, given rise to a special grievance acutely felt by retired officers; at one time pensions and retired pay fell as the cost of living did, but they have remained fixed while it has risen considerably.

The Government had therefore decided to revise the 1944 and 1947 arrangements so as to allow all retired officers and Civil Service pensioners affected (i.e. those drawing pensions at rates still reflecting the 9½ per cent. cut below the 1919 level, in whole or in part) the minimum increase of 10 per cent. already enjoyed by those whose pensions or retired pay did not exceed £400 a year.

The White Paper stated that the change would mean that a full general whose pension of £1,400 a year in 1919 had been reduced by the 1935 cuts to £1,267 would now receive £1,394; and that a lieutenant-colonel with a pension of £600 a year in 1919, reduced by stabilization in 1935 to £543, would receive £597.

DOMINIONS AND COLONIES

AUSTRALIA

H.R.H. THE DUKE OF EDINBURGH.—An announcement from Government House, Canberra, dated 1st April and published in *The London Gazette* on 2nd April, stated that The Queen had approved the appointment of the Duke of Edinburgh as Admiral of the Fleet in the Royal Australian Navy, Field-Marshal in the Australian Military Forces, and Marshal of the Royal Australian Air Force.

AUSTRALIAN-MADE ROCKETS.—Australia's first manufactured rockets for the Royal Australian Navy, Royal Australian Air Force, and the Woomera Test Range are now coming off the production lines at the British Tube Mills, Kilburn, where the rockets, 3-inch missiles, are being made under the general supervision of the Department of Defence Production. These are part of a £A500,000 order of various types of rockets, including 60,000 3-inch general purposes missiles for the R.A.N. and R.A.A.F., 3,000 5-inch assisted take-off rockets for R.A.N. carrier-borne aircraft, and 5-inch boost-motor rockets for the Woomera long-range weapons establishment.

FOREIGN

GERMANY

STRENGTH OF POLICE FORCES IN EASTERN AND WESTERN GERMANY

In reply to a question in the House of Commons by Mr. Arthur Henderson, the following information on the strength of the East and West German police forces was given on 24th March by Mr. Nutting, Under-Secretary at the Foreign Office:

(1) The so-called East German "police forces" (*Volkspolizei*), according to latest information, had a strength of 90,000 men organized in army, navy, and air force formations, and armed with 600 tanks, 250 self-propelled guns (including howitzers), 1,700 other guns, and aircraft. In addition, there were about 55,000 men in the civil police, about 12,000 police for various security duties, and about 20,000 frontier police, making some 177,000 in all.

(2) The West German police force consisted of about 110,000 men, of whom 90,000 were ordinary civil police normally armed with pistols. The remaining 20,000 were divided between frontier and mobile police, and were armed primarily with carbines and pistols; they also had a limited number of lightly armoured vehicles and mortars. Mr. Nutting added that the formation of East German military units had begun in October, 1946, i.e. about two years before even a decision in principle had been taken about West German rearmament.

KOREA

RATIFICATION OF MUTUAL SECURITY TREATY WITH THE UNITED STATES.—The U.S. Senate, in accordance with the unanimous recommendation of its Foreign Relations Committee, ratified the mutual security treaty between the U.S.A. and South Korea on 26th January. President Rhee ratified the treaty on behalf of the Republic of Korea on 29th January.

PRO-COMMUNIST PRISONERS OF WAR.—The 347 pro-Communist prisoners of war, consisting of one Briton, 21 Americans, and 325 South Koreans, were moved to North Korea on 28th January, the Neutral Nations Repatriation Commission having previously decided to allow Communist Red Cross officials to take them over.

DEPARTURE OF INDIAN CUSTODIAN TROOPS.—The last party of the Indian custodian troops, who guarded prisoners of war during the 'explanation' period, left Panmunjom on 23rd February on their way back to India.

RUSSIA—CHINA**ESTIMATES OF RUSSIAN, SATELLITE, AND CHINESE ARMED STRENGTH**

Replying to a question by Mr. Emrys Hughes, the Parliamentary Secretary to the Ministry of Defence, Mr. Nigel Birch, stated in the House of Commons on 16th February that the strength of the Soviet armed forces had increased by 150,000 since 1951 to 4,750,000, mainly as a result of the growth of the Soviet Navy; that the armies of the Eastern European satellites had grown by nearly 120,000 over the same period to about 1,190,000; and that the Chinese armed forces totalled over 4,000,000, in addition to between 6,000,000 and 10,000,000 men in the militia.

Mr. Birch stated in a Parliamentary written answer on 22nd February (a) that the Soviet Navy had between 20 and 25 modern cruisers, over 100 modern destroyers, about 350 submarines (approximately half of which were small coastal types), and 2,000 minor vessels; (b) that there were about 20,000 aircraft in the Soviet Air Force, and an additional 3,000 naval aircraft; and (c) that the Soviet Army had over 30,000 tanks in active service and about 25,000 in reserve.

UNITED STATES

THE BUDGET, 1954-55.—President Eisenhower submitted to Congress on 21st January his Budget proposals for the fiscal year 1955 (July, 1954-June, 1955). Total expenditure was estimated at \$65,570,000,000 (of which \$44,860,000,000 or 68 per cent. was for National Security) and revenue at \$62,642,000,000, leaving a budgetary deficit of \$2,928,000,000. Unlike last year's Budget, which showed all foreign aid under the heading of "International Security and Foreign Relations", the present Budget included military aid (\$4,275,000,000) under "National Security" and economic and technical assistance (\$1,125,000,000) under "International Affairs and Finance"—making a total expenditure on foreign aid of \$5,400,000,000; this compared with the \$7,600,000,000 proposed by President Truman for 1953-54, the revised figure of \$5,800,000,000 proposed by President Eisenhower, the \$5,157,000,000 authorized, and the \$4,532,000,000 appropriated (excluding re-appropriations).

EFFECTS OF HYDROGEN BOMB TEST IN 1952.—The chairman of the Joint Congressional Committee on Atomic Energy, Representative Sterling Cole, speaking in Chicago on 17th February, disclosed that the thermo-nuclear (hydrogen bomb) test carried out in the Pacific in 1952 had "completely obliterated" the test island in the Eniwetok atoll and had torn a cavity in the floor of the ocean one mile in diameter and 175 feet in depth, within which "one could place 140 structures the size of our nation's Capitol" (i.e. the Capitol in Washington). Mr. Cole added: "If it occurred in a modern city, the heat and blast generated in the 1952 hydrogen test would cause absolute destruction over an area extending three miles in all directions from the point of explosion. This is an area of complete devastation—using the word 'complete' in its most precise meaning—six miles in diameter. The area of severe-to-moderate damage would stretch in all directions seven miles from ground zero. Finally, the area of light damage would reach 10 miles from the point of detonation. In other words, an area covering 300 square miles would be blanketed by this hydrogen explosion." Mr. Cole added that the weapon used in the 1952 test was the forerunner of "an entire family of hydrogen weapons."

President Eisenhower had informed Congress on 2nd February that the Eniwetok test of 1952 was "the first full-scale thermo-nuclear explosion in history", thereby officially confirming that a hydrogen weapon had been used.

NAVY NOTES

GREAT BRITAIN

H.M. THE QUEEN

ROYAL TOUR.—Ships of the Royal Australian Navy relinquished the duties of escorting the s.s. *Gothic*, which had left Fremantle on 1st April, on reaching the limit of the Australian Station on 5th April. The duties were assumed by the cruisers *Newfoundland* and *Ceylon*, which escorted the *Gothic* to Colombo. The Royal Yacht *Britannia* left Portsmouth on 14th April, with the Duke of Cornwall and Princess Anne on board, escorted by the frigate *Loch Alvie*, and was due on 1st May at Tobruk to meet The Queen and the Duke of Edinburgh for the concluding portion of their tour.

AIDES-DE-CAMP.—The following have been appointed Naval Aides-de-Camp to The Queen from 7th January, 1954, in place of the officers stated :—

Captain (Commodore Second Class) E. O. F. Price, O.B.E., in place of Captain H. A. Traill, C.B.E.

Captain V. D'A. Donaldson, in place of Captain J. H. Ruck-Keene, O.B.E., D.S.C.

Captain C. B. Alers-Hankey, D.S.C., in place of Captain W. G. Brittain, C.B.E.

Captain B. Bryant, D.S.O., D.S.C., in place of Captain A. N. C. Bingley, O.B.E.

Captain J. G. T. Inglis, O.B.E., in place of Captain R. D. Watson, C.B.E.

Captain (Commodore Second Class) L. E. Porter, in place of Captain (Commodore First Class) G. Thistleton-Smith, G.M.

Captain W. J. Yendell, in place of Captain T. J. N. Hilken, D.S.O.

Captain R. C. Boyle, D.S.C., in place of Captain J. Jefferis, D.S.C.

Colonel J. T. Hall, C.B.E., on being placed on the retired list (24th January) was succeeded as Royal Marine Aide-de-Camp to The Queen by Colonel W. S. North.

HONORARY SURGEON.—Surgeon Rear-Admiral R. C. May, O.B.E., M.C., has been appointed Honorary Surgeon to The Queen in succession to Surgeon Rear-Admiral T. Madill, C.B., O.B.E.

EXTRA EQUERRY.—Captain Sir Harold G. Campbell, G.C.V.O., D.S.O., R.N. (Retired), on his retirement from the appointment of Equerry and Groom of the Robes to The Queen, has been appointed an Extra Equerry to Her Majesty (1st January, 1954).

BOARD OF ADMIRALTY

The Queen has been pleased by Letters Patent under the Great Seal bearing date the 17th day of April, 1954, to appoint the following to be Commissioners for executing the Office of Lord High Admiral of the United Kingdom :—

The Rt. Hon. James P. L. Thomas.

Admiral of the Fleet Sir Rhoderick R. McGrigor, G.C.B., D.S.O.

Admiral the Hon. Sir Guy H. E. Russell, G.B.E., K.C.B., D.S.O.

Vice-Admiral Sir Ralph A. B. Edwards, K.C.B., C.B.E.

Vice-Admiral F. R. Parham, C.B., C.B.E., D.S.O.

Vice-Admiral Sir Edmund W. Anstice, K.C.B.

Vice-Admiral W. W. Davis, C.B., D.S.O.

Vice-Admiral E. G. A. Clifford, C.B., C.B.E.

Commander A. H. P. Noble, D.S.O. D.S.C.

Kenelm S. D. Wingfield Digby, Esq.

Sir John G. Lang, K.C.B.

FIRST LORD.—The First Lord, Mr. J. P. L. Thomas, M.P., visited the North Atlantic Treaty Organization Defence College in Paris on 15th January. On 12th February, the First Lord inspected dry dock and other facilities at Cardiff and Reserve Fleet ships laid up at the neighbouring port of Penarth. On 30th March, the First Lord and other members of the Board inspected the new surveying ship *Vidal* in the Thames.

FIRST SEA LORD.—The First Sea Lord, Admiral of the Fleet Sir Rhoderick McGrigor, on 13th January, visited H.M.S. *Diligence*, the small ships' equipping and commissioning base at Hythe, near Southampton, proceeding there from Southampton in a motor torpedo boat. Between 2nd and 11th February, the First Sea Lord visited Italy and Malta, meeting the Italian Minister of Defence, the Chief of the Italian Naval Staff, the N.A.T.O. Commander-in-Chief, South, Admiral Fechteler, U.S.N., and the Allied Commander-in-Chief, Mediterranean, Admiral Lord Mountbatten.

The Parliamentary Secretary, Commander Noble, M.P., and Civil Lord, Mr. Wingfield Digby, M.P., visited Portsmouth on 2nd April. The Civil Lord also visited shipyards and dry docks in Newport and Barry on 5th February.

FLAG APPOINTMENTS

PORTSMOUTH.—Admiral Sir George E. Creasy, G.C.B., C.B.E., D.S.O., M.V.O., to be Commander-in-Chief, Portsmouth, in succession to Admiral Sir John H. Edelsten, G.C.B., G.C.V.O., C.B.E. (September, 1954).

SOUTH ATLANTIC.—Vice-Admiral Ian M. R. Campbell, C.B., D.S.O., to be Commander-in-Chief, South Atlantic, in succession to Vice-Admiral Sir Peveril B. R. W. William-Powlett, K.C.B., C.B.E., D.S.O. (May, 1954).

GOVERNOR, SOUTHERN RHODESIA.—Vice-Admiral Sir Peveril William-Powlett is to be Governor of Southern Rhodesia in succession to Major-General Sir John Kennedy, whose term of office ends in July.

EAST INDIES.—Vice-Admiral C. F. W. Norris, C.B., D.S.O., to be Commander-in-Chief, East Indies Station, in succession to Admiral Sir William R. Slayter, K.C.B., D.S.O. (August, 1954).

D.C.N.S.—Rear-Admiral E. G. A. Clifford, C.B., C.B.E., to be a Lord Commissioner of the Admiralty and Deputy Chief of Naval Staff, in succession to Rear-Admiral G. Barnard, C.B., C.B.E., D.S.O. (April, 1954). (See Retirements and Promotions.)

FIFTH SEA LORD.—Rear-Admiral A. N. C. Bingley, O.B.E., to be a Lord Commissioner of the Admiralty, Fifth Sea Lord and Deputy Chief of Naval Staff (Air), in succession to Vice-Admiral Sir Edmund W. Anstice, K.C.B. (June, 1954).

MEDITERRANEAN.—Rear-Admiral R. D. Watson, C.B.E., to be Flag Officer (Flotillas), Mediterranean, in succession to Vice-Admiral C. F. W. Norris, C.B., D.S.O. (February, 1954).

I.D.C.—Rear-Admiral M. L. Power, C.B.E., D.S.O., to be Senior Naval Member of the Directing Staff of the Imperial Defence College, in succession to Rear-Admiral S. H. Carlill, C.B., D.S.O. (April, 1954).

MIDDLE EAST.—Rear-Admiral P. W. Brock, D.S.O., to be Flag Officer, Middle East, in succession to Rear-Admiral G. H. Stokes, C.B., D.S.C. (April, 1954).

RESERVE FLEET.—Rear-Admiral J. W. M. Eaton, C.B., D.S.O., D.S.C., to be Flag Officer Commanding Reserve Fleet, in succession to Vice-Admiral I. M. R. Campbell, C.B., D.S.O. (April, 1954).

WASHINGTON.—Rear-Admiral G. Barnard, C.B., C.B.E., D.S.O., to be Admiral, British Joint Services Mission, Washington, in succession to Vice-Admiral C. C. Hughes-Hallett, C.B., C.B.E. (August, 1954). Rear-Admiral Barnard is granted the acting rank of Vice-Admiral while holding this appointment.

TRAINING SQUADRON.—Rear-Admiral S. H. Carlill, C.B., D.S.O., to be Flag Officer, Home Fleet Training Squadron, in succession to Rear-Admiral W. L. G. Adams, O.B.E. (August, 1954).

D. OF D.—Rear-Admiral A. G. V. Hubback, C.B., C.B.E., to be Director of Dockyards, in succession to Vice-Admiral Sir York la R. Beverley, K.B.E., C.B. (end of 1954).

PORTSMOUTH DOCKYARD.—Rear-Admiral J. S. C. Salter, C.B., D.S.O., O.B.E., to be Admiral Superintendent, H.M. Dockyard, Portsmouth, in succession to Rear-Admiral A. G. V. Hubback, C.B., C.B.E., (October, 1954).

FLAG OFFICER, MALTA.—Rear-Admiral W. G. Brittain, C.B.E., to be Flag Officer, Malta, and Admiral Superintendent, H.M. Dockyard, Malta, in succession to Rear-Admiral J. S. C. Salter, C.B., D.S.O., O.B.E. (August, 1954).

D.N.I.—Captain J. G. T. Inglis, O.B.E., to be Director of Naval Intelligence, in succession to Rear-Admiral Sir Anthony Buzzard, Bart, C.B., D.S.O., O.B.E. (June, 1954).

SUPPLY BRANCH.—Rear-Admiral (S) M. H. Elliott, C.B., C.B.E., to be promoted Vice-Admiral (S) and appointed Director-General, Supply and Secretariat Branch, in succession to Vice-Admiral (S) Sir William McBride, K.C.B., C.B.E. (4th August, 1954).

C. E.-IN-C.—The First Lord has approved the appointment of Mr. M. E. Adams, O.B.E., M.I.C.E., as Civil Engineer-in-Chief, with effect from 1st April, 1954, in succession to Sir F. A. Whitaker, K.C.B., M.Eng., M.I.C.E., who retired on 31st March, 1954.

RETIREMENTS AND PROMOTIONS

The following were announced to date 30th March, 1954 :—

Admiral Sir Maurice J. Mansergh, K.C.B., C.B.E., to be placed on the retired list.

Vice-Admiral Sir Charles E. Lambe, K.C.B., C.V.O., to be promoted to Admiral in H.M. Fleet.

Rear-Admiral G. W. G. Simpson, C.B., C.B.E., to be placed on the retired list.

Rear-Admiral C. John, C.B., to be promoted to Vice-Admiral in H.M. Fleet.

The following was announced on 18th January :—

Rear-Admiral R. St. V. Sherbrooke, V.C., C.B., D.S.O., has been placed on the retired list, medically unfit, to date 4th March, 1954. In *The London Gazette* on 12th March it was announced that Rear-Admiral Sherbrooke had been appointed by Her Majesty to succeed Major-General D. N. Wimberley as Gentleman Usher of the Scarlet Rod.

The following was announced on 1st April :—

Rear-Admiral E. G. A. Clifford, C.B., to be promoted to Vice-Admiral in H.M. Fleet in the room of Admiral Sir Philip K. Enright, K.B.E., C.B., who reverts to the retired list on completion of his appointment as Admiral Superintendent, H.M. Dockyard, Devonport.

The following were announced on 3rd March :—

Captain (E) N. E. Dalton, O.B.E., R.N., to be promoted to Rear-Admiral (E) with effect from 5th April, 1954, and appointed Rear-Admiral (E) on Staff of Commander-in-Chief, Portsmouth.

Rear-Admiral (E) R. Cobb, C.B.E., to be placed on the retired list with effect from 12th April, 1954.

THE NAVY ESTIMATES

The Navy Estimates, 1954-55, were presented to Parliament on 23rd February. They provide for a net expenditure of £367,000,000, or £2,500,000 more than last year. The United Kingdom will provide £353,000,000 of this total, as compared with £329,000,000

in 1953-54, while the balance will be received in the form of Mutual Defence Assistance from the United States. A maximum Regular strength of 139,000 in April, 1954, with a reduction during the year, is provided for in Vote A, a decrease of about 12,000.

In an Explanatory Statement (Cmd. 9079, price 6d.) the First Lord states that all officers and men compulsorily retained or recalled from the Reserves under emergency man-power measures introduced in 1950 will have been released by 31st March. Re-engagement will become a particularly acute problem in the next few years. There has been a sharp deterioration in recruiting, and it is planned to enter approximately 6,500 National Service men into the Navy in 1954-55, an appreciable increase.

The naval production programme is now running at a steady level and emphasis remains on the expansion of minesweeper and anti-submarine forces and on completing the aircraft carriers under construction. The programme of modernization and conversion will be substantial. The re-equipment of the Fleet Air Arm with jet and turbo-prop aircraft has made progress. The main effort in naval research and development is being directed to solving problems in the anti-submarine, anti-mine, and anti-aircraft fields. Ships under construction but not yet launched include 22 frigates, 32 coastal minesweepers, and 35 inshore minesweepers. Those under construction and launched by 31st March, 1954, include seven carriers (work on two suspended); three cruisers (construction work suspended, but preparation of equipment continues); one submarine; three frigates; 25 coastal minesweepers; 22 inshore minesweepers; one fast patrol boat; and six seaward defence boats.

In presenting the Estimates in the House of Commons on 9th March, the First Lord announced a reduction in the period of foreign service commissions and the introduction of the general service commission of 18 months (two years in the case of aircraft carriers), during which time ships will not spend more than 12 months overseas at a stretch and the remainder in the Home Fleet. Now that the retention of time-expired men and recalled reservists is coming to an end, it has been decided to reopen facilities for men to purchase their discharge. In general this will be governed by pre-war rules, with two important modifications: (1) men with less than three years' man service will be ineligible; and (2) the rate of discharge will be controlled by the Admiralty.

All carriers completing or being modernized after 1955 are expected to have the full angled deck, the steam catapult, and the latest arrestor gear. In addition to orthodox submarines, two experimental craft using hydrogen peroxide propulsion to provide high underwater speed are nearing completion. The latest anti-submarine vessels would be equipped with greatly improved asdic gear containing an electronic 'brain' operating a more deadly anti-submarine mortar logically developed from the successful 'squid.' This equipment locates, aims, fires, and sets its bombs to explode at the correct depth without human aid. A large guided missile for fleet and convoy protection is being developed by the Navy in conjunction with the Ministry of Supply. Modern radar sets now fitted in anti-submarine ships can detect submarine snort masts and periscopes at considerable ranges. Anti-submarine aircraft will be fitted with modern radar and will also carry buoys, known as sonobuoys, fitted with gear to detect and track submerged submarines and relay the information back to the parent aircraft.

EXERCISES AND CRUISES

HOME FLEET.—Ships of the Home Fleet based on Gibraltar for Spring training and exercises paid courtesy visits between 26th February and 8th March to Mers-el-Kebir, Oran, Tangier, Casablanca, and Setubal (Portugal). In view of recent manifestations of anti-British feeling in Spain, it was announced on 28th January that H.M. Government had withdrawn their application for Home Fleet ships to visit ports in Spain and Spanish Morocco in February and March.

N.A.T.O. MINESWEEPING.—N.A.T.O. minesweeping forces of the Channel Command exercised in the southern North Sea off Harwich between 15th and 27th March under

the direction of Admiral Sir Geoffrey Oliver, Commander, Nore Sub-Area, Channel Command. Dutch and Belgian minesweepers were among those taking part. Practice mines were laid by ships of the Royal Navy and aircraft of the United Kingdom Bomber Command. While sweeping, ships were attacked in strikes by coastal forces, and were defended by fast patrol boats and aircraft of United Kingdom Fighter and Coastal Commands.

MEDITERRANEAN.—Two major N.A.T.O. training exercises were held concurrently in the Mediterranean in March and April. A naval exercise, "Medflex A," directed by Admiral Lord Mountbatten, Commander-in-Chief, Allied Forces, Mediterranean, was conducted by Admiral Sala, French Navy, and Rear-Admiral Currey, Royal Navy, in the Western Mediterranean and Gibraltar areas; and an air defence exercise, "Shield I," was conducted by Lieutenant-General David M. Schlatter, the Commander of the Allied Air Forces in the Southern Europe Command of Admiral Fechteler, U.S.N. (See General Service Notes.) Among the heavy units taking part in "Medflex A" were the British aircraft carriers *Eagle* and *Warrior*, French cruisers *Montcalm* and *Gloire*, British cruisers *Glasgow*, *Gambia*, and *Bermuda*, and H.M.S. *Daring*, name ship of the new "Daring" class.

COMET AIRCRAFT SALVAGE.—At the request of the Minister of Transport, the Commander-in-Chief, Mediterranean, was, on 16th January, asked to endeavour to locate and salve the wreck of the Comet aircraft which crashed into the sea off Elba on 10th January. The conditions were exceptionally difficult, due to the great depth of water and the winter storms, coupled with the fact that the numerous parts of the aircraft were scattered over a wide area. By 2nd April, however, when Admiral Lord Mountbatten visited the scene of operations, he was able to congratulate those engaged on bringing to the surface over 80 per cent. of the missing aircraft. The admiral also thanked Harbour Master Lombardi, of Port Ferrajo, for the great assistance that he and the local Italian trawlers had given in the operation.

FAR EAST.—A ten-day Allied maritime exercise, "Sonata," in which British, French, and American warships, merchant ships, and aircraft co-operated, was held in February in the South China Sea, to afford training in submarine attack, hunting, and detection, the protection of trade, and general staff work. Control of the forces engaged was exercised by the French Vice-Admiral Auboyneau from Saigon, Rear-Admiral Cruzen, U.S.N., from Manila, and Vice-Admiral Sir Charles Lambe and Air Marshal Sir Clifford Sanderson acting jointly from their headquarters in Singapore.

MALAYA BOMBARDMENT.—Early in March, H.M.S. *Defender*, the only ship of the new "Daring" class in the Far East, carried out a bombardment against terrorists in Johore State in support of the 2nd/10th Gurkha Rifles. The operation involved a feat of navigation up the Johore River, which is poorly charted and from which navigational buoys had been removed, but the passage both ways was made without incident, H.M. tug *Enigma* proceeding ahead to take soundings and provide against any eventualities. The *Defender* carried out her bombardment anchored off the village of Telat Sengat, firing 110 shells into six targets in the jungle at ranges up to nine miles. An Auster aircraft circled the targets and directed the fire. All targets were reported neutralized in the bombardment of one and a half hours.

AMERICA STATION.—H.M.S. *Sheffield*, flagship of the Commander-in-Chief, America and West Indies Station, Vice-Admiral J. F. Stevens, visited Vera Cruz in February, during which the C.-in-C. was warmly received by the President and Ministers in Mexico City. Officers and ratings of the ship also proceeded there at the invitation of the Mexican Government, transport and accommodation being provided for them without charge. In March, the *Sheffield* paid a visit of six days to Houston, Texas.

BIOLOGICAL WARFARE TRIALS.—It was announced on 12th March by the Minister of Supply, Mr. Sandys, that trials of methods of defence against biological warfare are to be carried out this year in Bahaman waters. The area chosen is far out to sea, at

least 20 miles from any inhabited island, and is widely removed from any normal shipping route. The Admiralty subsequently confirmed that H.M.S. *Ben Lomond* was involved in these forthcoming trials.

FLEET ORGANIZATION

HOME FLEET CHANGES.—The battleship *Vanguard*, now flagship of the Home Fleet, is to be taken in hand for a refit at Devonport in the Autumn. She will be temporarily relieved as flagship by H.M.S. *Tyne*, destroyer depot-ship.

The fleet aircraft carriers of the Home Fleet Training Squadron, the *Implacable* (flagship) and *Indefatigable*, are to be replaced by three light fleet carriers of the "Colossus" class: H.M.S. *Theseus*, now attached to the Home Fleet; H.M.S. *Glory*, recently returned from the Mediterranean; and H.M.S. *Ocean*, at Devonport. All three will be fitted in the dockyards with classrooms and special equipment for their training duties.

RESERVE FLEET.—In continuation of the policy of berthing ships of the Reserve Fleet at commercial ports, the Admiralty have decided that, on the satisfactory conclusion of negotiations with the Docks and Inland Waterways Executive, four destroyers and four frigates will be berthed at Barry Docks. The vessels will be dehumidified and will be maintained by the Mount Stewart Dry Dock Company. Arrangements are under negotiation to berth 34 minesweepers of the Fleet at Portchester, Hants.

PERSONNEL

PRIZE FUND PAYMENTS.—On 17th March, the First Lord announced in a written reply to a question in the House of Commons that the Naval Prize Fund residue will be used for charitable and welfare purposes for the benefit of past and present members of the Royal Navy, Royal Marines, the Women's Services of the Royal Navy, and their respective reserves. Grants amounting to £432,000, of which details were given, have been authorized as a first distribution.

PRIZE AWARD.—The Clare D'Oyly Memorial Prize for the Spring term, 1954, has been awarded to Acting Sub-Lieutenant (E) W. G. Mumford, R.N., of Elburton, Plymouth, who entered the Royal Naval College, Dartmouth, as a cadet in 1950. This prize, which commemorates Lieutenant (E) R. C. H. D'Oyly, killed in action in H.M.S. *Bonaventure* on 31st March, 1941, is awarded on completion of the two-year basic course in engineering to the acting sub-lieutenant who is considered to possess the greatest qualities as an officer in his term or entry.

POLAR GALLERY, GREENWICH

The Polar Gallery in the East Wing of the National Maritime Museum, Greenwich, was reopened in February after having been closed for some months for repair and the fitting of new cases. The principal exhibits in the gallery are the relics of the lost Franklin Expedition which were brought to England by Dr. John Rae in 1854 and Captain (later Admiral Sir) Francis L. McClintock in 1859.

MATERIEL

H.M.S. "DIANA."—The last of the eight "Daring" class ships, H.M.S. *Diana*, built at Scotstoun by Yarrow and Company, Limited, was accepted into H.M. Service on 19th March. With an extreme length of 390 feet, 366 feet between perpendiculars, and a beam of 43 feet, the *Diana* is armed with six 4.5-inch guns, six other guns, and two above-water pentad torpedo tubes. Her peace-time complement is about 16 officers and 281 men.

H.M.S. "ABERFORD."—H.M. seaward defence boat *Aberford* joined the Fleet on 2nd March, 1954. She was built by Yarrow and Company, Limited, with diesel machinery by Davey Paxman and Company, Limited. Her dimensions are: 117½ feet extreme length (110 feet at the waterline) and 20 feet beam. The purpose of this entirely new type of vessel is to detect, locate, and destroy submarines, including midget submarines, in the approaches to defended ports.

H.M.S. "VIDAL."—The surveying ship *Vidal*, the first to be equipped with a helicopter flight deck, was completed at Chatham Dockyard in March. The helicopter will be used for air survey photography and the transport of parties to shore observation stations. Three surveying motor boats equipped with echo-sounding apparatus will be carried. There is a large process camera and lithographic printing press to enable the results of surveys to be reproduced on board.

LAUNCHES.—The submarine *Explorer* was launched at Barrow-in-Furness by Vickers-Armstrongs, Limited, on 5th March. The propulsive machinery is of a novel design employing hydrogen peroxide. The fast patrol boat *Dark Hunter*, first of a new class to be powered by the Napier Deltic engine, was launched at the Fife yard of J. N. Miller and Sons, Limited, on 18th March. The first of a group of inshore mine-sweepers being constructed under the American off shore procurement programme for N.A.T.O. nations was launched at the Appledore yard of Messrs. P. K. Harris on 5th April.

HOSPITAL SHIP "MAINE" TO BE SOLD.—The Admiralty is to dispose of H.M. hospital ship *Maine*, which rendered outstanding service during the Korean war. She is now at Hong Kong. The *Maine* is the third hospital ship of the Royal Navy to bear the name. She was built in 1924 by the Italians as the *Leonardo da Vinci* and was captured by the Royal Navy at Massawa in 1941. Converted into a hospital ship in 1943, she was renamed *Empire Clyde*, and was renamed *Maine* in January, 1948.

FLEET AIR ARM

NEW SQUADRONS.—The first anti-submarine helicopter squadron, No. 845, formed in 1953 with American-built Sikorsky aircraft, came into operational service on 15th March, at Gosport, and will be moved to the Mediterranean, based at Halfar, Malta. The first squadron to be equipped with de Havilland Sea Venom all-weather jet fighter aircraft was formed at the R.N. Air Station, Yeovilton, Somerset, in mid-March, known as No. 890 Squadron.

NEW DECK LANDING AID.—A new British invention to assist in operating the faster aircraft of the future from the flight decks of aircraft carriers was announced by the Admiralty on 15th March. This new deck landing aid, a signalling system incorporating lights, mirrors, and a gyro-mechanism, will, subject to the success of further trials, ultimately supersede that familiar flight deck figure, the "batsman." The idea for the new mirror sight was put forward by Commander (E) H. C. N. Goodhart, R.N., and the development of the device has been advanced by a team led by Mr. D. Lean, of the Royal Aircraft Establishment, Farnborough.

BOYD TROPHY.—The Boyd Trophy, a small silver model of a Swordfish aircraft, presented annually for the most outstanding feat of aviation in the Royal Navy, has been awarded to No. 848 Helicopter Squadron for services in Malaya during 1953.

KEMSLEY TROPHY.—The first winner of the new Kemsley Trust Flying Trophy is No. 1831 Squadron, R.N.V.R., Stretton, near Warrington, Lancs. This trophy, a silver vase, was presented in December, 1953, by Viscount Kemsley and the trustees of the Kemsley Flying Trust to stimulate recruitment in the R.N.V.R. air squadrons and promote efficiency in their flying training.

ROYAL NAVAL VOLUNTEER RESERVE

JUBILEE REVIEW

A contingent from Canada and representatives of the New Zealand, South African, Malayan, Hong Kong, and Ceylon Royal Naval Volunteer Reserves will be among the 2,000 officers and men of the R.N.V.R. to be reviewed by the Queen on the Horse Guards Parade on Saturday, 12th June, to commemorate the 50th anniversary of the formation of the Reserve. During the parade, 96 aircraft drawn from the five air divisions of the R.N.V.R. will fly past. The review will be mounted from Portsmouth, and seagoing

vessels attached to R.N.V.R. Divisions will assemble at Portsmouth at the same time. They will afterwards take part in cruises, during which calls will probably be made at continental ports. A service of commemoration will be held in St. Paul's Cathedral at 6.30 p.m. on Friday, 11th June.

WOMEN'S ROYAL NAVAL SERVICE

INSPECTION.—H.R.H. The Duchess of Kent, Chief Commandant, visited H.M.S. *Dauntless*, the W.R.N.S. Training Establishment at Burghfield, Reading, on 23rd February, and was received by the Commander-in-Chief, The Nore, Admiral Sir Geoffrey Oliver, the Director, W.R.N.S., Commandant Dame Mary Lloyd, and the Superintendent of the Establishment, Miss N. M. Robertson. Her Royal Highness inspected the ship's company and training divisions on the parade ground.

MIDDLE EAST VISIT.—Commandant Dame Mary Lloyd toured the Canal Zone and the Mediterranean during February. Her first call was at Fayid, Headquarters of the Flag Officer, Middle East, on whose staff a number of W.R.N.S. are serving. Later she flew to Malta.

ROYAL MARINES

COMMANDANT GENERAL.—Lieutenant-General J. C. Westall, C.B., C.B.E., Commandant General Royal Marines, flew to Gibraltar on 9th March to visit Royal Marines in Home Fleet ships based there during the Spring cruise. On 27th March, in the presence of the Lord Provost of Edinburgh, the Commandant General officially opened five memorial houses erected in the Stenhouse district as a memorial to the late Corporal Tom Hunter, who was posthumously awarded the Victoria Cross for supreme gallantry while serving in 43 R.M. Commando in Italy in 1945.

APPOINTMENTS.—Major-General C. F. Phillips, C.B.E., D.S.O., to be Chief of Amphibious Warfare (1st June, 1954), vice Major-General V. D. Thomas, C.B., C.B.E.

Colonel (Acting Brigadier) J. L. Moulton, D.S.O., O.B.E., to be Major-General (1st June, 1954) and to relieve Major-General C. F. Phillips as Major-General, Royal Marines, Portsmouth.

Colonel I. H. Riches, D.S.O., to relieve Colonel (Acting Brigadier) J. L. Moulton as Commander, 3 Commando Brigade, R.M., in the rank of acting brigadier.

41 COMMANDO MEMORIAL.—On 21st March, the Bishop of Exeter dedicated a Memorial at the Parish Church of Bickleigh, near Plymouth, to the 27 men of 41 (Independent) Commando, Royal Marines, who were killed in action or died in captivity in Korea. The Memorial, an altar set, was offered for dedication by Lieutenant-Colonel J. B. Drysdale, D.S.O., M.B.E., R.M., Commanding Officer of 41 Commando in Korea. A plaque with a list of those of the unit who lost their lives was unveiled in the church by Lieutenant-General Westall, Commandant General. It was at the Commando School, R.M., at Bickleigh that 41 Commando was formed in 1950.

SNOW WARFARE TRAINING.—For the fourth year officers and men of the Royal Marines carried out snow warfare training in the Cairngorms during February and March. The aim of this training is to provide a nucleus of officers and men with experience of living and operating tactically under snow conditions.

DOMINIONS AND COLONIES

NEW ZEALAND

NAVY OFFICE.—On 1st January, 1954, the Navy Office, Wellington, became H.M.N.Z.S. *Wakefield*. The change from H.M.N.Z.S. *Philomel II* was made to reserve a ship name for the former naval installation at Shelly Bay should it be recommissioned.

HONOLULU CONFERENCE.—The Chief of the Australian Naval Staff, Vice-Admiral Sir John Collins, the Chief of the New Zealand Naval Staff, Commodore Sir Charles

Madden, and Admiral Felix B. Stump, Commander-in-Chief of the United States Pacific Fleet, met in Pearl Harbour in December for discussions in continuation of those held in Pearl Harbour in 1951 with Admiral Stump's predecessor, Admiral Radford.

INDIA

TRANSFER OF H.M.S. "NIGERIA"

It was announced on 7th April from Indian Naval Headquarters and the Admiralty that agreement had been reached on the sale of the 6-inch cruiser H.M.S. *Nigeria* to the Indian Navy. The Indian Government has for some years been negotiating with the Admiralty for a second cruiser to meet the sea training requirements of their small but growing Navy, and the present agreement is the result. The other cruiser is the I.N.S. *Delhi*, formerly H.M.S. *Achilles*.

FOREIGN

ARGENTINA

ANTARCTIC EXPEDITION

Rear-Admiral Anibal Olivieri, Minister of Marine, left Buenos Aires on 19th February in the naval transport *Les Eclaireurs* on a visit of inspection to detachments in "Argentine Antarctica." The vessel arrived at Deception Island on 4th March. In reply to a question on 8th March, the British Foreign Secretary, Mr. Eden, said: "In the exercise of our sovereignty over the Falkland Islands Dependencies, Her Majesty's Government have been very ready to welcome this vessel and her passengers to British Antarctic waters. However, Her Majesty's Government would, of course, have preferred longer notice of the proposed visit, and on my instructions Her Majesty's Ambassador at Buenos Aires so informed the Argentine Government."

On 14th January, Senor Guillermo del Pedregal, Chile's acting Foreign Minister, said that a unit of the Chilean Navy would be permanently stationed in waters off the country's southern tip where Argentina and Chile dispute possession of three islands.

FRANCE

BATTLESHIP "LORRAINE" SOLD

It was reported from Toulon that the old French battleship *Lorraine* was sold for scrap on 23rd January by auction to a Le Havre shipbreaking firm. She fetched 188 m. francs (about £190,000). At two earlier auctions the reserve price was not reached.

NETHERLANDS

NEW CRUISER

The cruiser *De Zeven Provinciën*, on her maiden voyage, arrived at Portsmouth on 7th April on a visit of three days. She flew the flag of the Netherlands Minister of the Navy, who was on board with Vice-Admiral A. de Booy, Commander-in-Chief, Netherlands Navy.

The speed of H.Neth. M. *De Zeven Provinciën* and *De Ruyter* is 33 knots, and not 25 knots as was stated in the February issue of the JOURNAL.

ITALY

SUBMARINE SALVED

The submarine *Jalea*, which was sunk off Trieste on 10th August, 1915, while attempting to attack ships of the Austro-Hungarian Fleet, was brought to the surface on 1st April. Within the hull were found the remains of the captain and ten men, and they were buried in the Italian military cemetery at Redipuglia.

RUSSIA

RETURN OF LEND-LEASE CRAFT

On 26th March, Russia agreed to return to the United States 38 small naval vessels lent to her under the war-time Lend-Lease Act. The vessels—12 motor torpedo boats and 26 submarine chasers—are to be handed over to United States control at Istanbul, Turkey, during May and June.

SPAIN

MINESWEEPERS

The minesweeper *Guadelete* foundered on 25th March in an easterly gale about 20 miles east of Gibraltar. An Italian merchant ship brought in 44 survivors, including the captain and first officer, the latter a son of the Spanish Minister of Marine, Senor Aznar. The British cruiser *Superb*, at Gibraltar, was among the vessels which answered a call from the Spanish authorities for assistance, and recovered two bodies, which were transferred to a Spanish warship.

On 17th February, the Spanish Ambassador in Washington accepted delivery at San Diego, California, of the United States naval vessel renamed the *Nalon*, 375 tons, an anti-magnetic minesweeper transferred to the Spanish flag as the first act in the naval installations programme of aid to Spain.

UNITED STATES

APPOINTMENT.—President Eisenhower has nominated Mr. Robert B. Anderson, Secretary of the Navy, to be Deputy Secretary of Defence in succession to Mr. R. Kyes.

COMMAND CHANGE.—Vice-Admiral John H. Cassady, U.S.N., on 19th March relieved Vice-Admiral Jerauld Wright, U.S.N., as Commander-in-Chief, U.S. Naval Forces, Eastern Atlantic and Mediterranean.

ATOMIC SUBMARINE.—The submarine *Nautilus*, the first ship to be propelled by atomic power, was launched at Groton, Conn., on 21st January by Mrs. Eisenhower, wife of the President. A second atomic submarine of different design, the *Seawolf*, will be launched in the fiscal year 1955.

OFFICERS' SWORDS.—Officers' swords are to reappear in the United States Navy, states *The Times* Correspondent in Washington, under a new regulation requiring them to be carried by Regular officers on all ceremonial and social occasions. The reintroduction is to be gradual so as not to overburden the limited number of sword makers, but admirals and captains must have swords by June. Before the last war supplies were mostly imported from England. The cost of a sword to the individual officer is estimated at 50 dollars (about 17 guineas).

ARMY NOTES

GREAT BRITAIN

H.M. THE QUEEN

Queen Elizabeth The Queen Mother, on behalf of The Queen, presented Colours to the 1st Battalion, The Royal Sussex Regiment, at Arundel on 24th April.

The Princess Royal, Controller Commandant, visited the 3rd Battalion, Women's Royal Army Corps, at Catterick on 13th April.

The Duke of Kent entered the Royal Military Academy, Sandhurst, in March.

The Duchess of Kent visited The Dorset Regiment, of which Her Royal Highness is Colonel-in-Chief, at Dorchester on 22nd March.

The Duchess of Kent, Colonel-in-Chief of the Regiment, visited the 1st Battalion, The Queen's Own Royal West Kent Regiment, at Maidstone on 2nd April.

The Queen has been graciously pleased to approve the following appointments :—

APPOINTED AIDE-DE-CAMP GENERAL TO HER MAJESTY.—General Sir Richard N. Gale, G.C.B., K.B.E., D.S.O., M.C., late Infantry (31st January, 1954), vice General Sir Frank E. W. Simpson, G.B.E., K.C.B., D.S.O., tenure expired.

APPOINTED AIDES-DE-CAMP TO HER MAJESTY.—Brigadier R. G. C. Poole, C.B.E., late Infantry (30th November, 1953), vice Major-General K. G. Exham, D.S.O., promoted; Brigadier H. J. B. Cracroft, D.S.O., late R.A.C. (2nd March, 1954), vice Brigadier W. S. Clarke, C.B.E., D.S.O., retired.

TO BE AIDES-DE-CAMP (ARMY EMERGENCY RESERVE) TO HER MAJESTY.—Lieut.-Colonel W. H. Hooper, O.B.E., T.D., R.E. (A.E.R.O.) (25th March, 1954); Lieut.-Colonel C. H. Blackburn, E.R.D., D.L., R.A.O.C. (A.E.R.O.) (25th March, 1954).

TO BE HONORARY PHYSICIAN TO HER MAJESTY.—Colonel F. R. Langmaid, O.B.E., T.D., M.R.C.S., L.R.C.P., R.A.M.C., T.A. (29th August, 1953), vice Colonel F. R. Sandford, C.B.E., M.C., T.D., M.B., transferred to T.A. Reserve of Officers.

APPOINTED HONORARY CHAPLAIN TO HER MAJESTY.—The Reverend R. J. F. Mayston, M.B.E., M.A., Chaplain to the Forces 1st Class, Royal Army Chaplains Department (12th January, 1954).

TO BE COLONEL COMMANDANT.—Of the Royal Army Dental Corps, Colonel B. Abbott (8th March, 1954), vice Colonel J. P. Duguid, tenure expired.

TO BE COLONELS OF REGIMENTS.—Of The Royal Leicestershire Regiment, Lieut.-General Sir Colin B. Callander, K.B.E., C.B., M.C. (22nd April, 1954), vice Lieut.-Colonel (Honorary Brigadier) H. S. Pinder, C.B.E., M.C., tenure expired; of The South Wales Borderers, Major-General F. R. G. Matthews, C.B., D.S.O. (18th April, 1954), vice General Sir Alfred R. Godwin-Austen, K.C.S.I., C.B., O.B.E., M.C., tenure expired; of The Gloucestershire Regiment, Major-General C. E. A. Firth, C.B., C.B.E., D.S.O. (23rd February, 1954), vice Major-General (Hon. Lieut.-General) Sir Harry E. de R. Wetherall, K.B.E., C.B., D.S.O., M.C., tenure expired; of The Royal Hampshire Regiment, Brigadier G. D. Browne, O.B.E. (19th March, 1954), vice Lieut.-Colonel (Honorary Brigadier) P. H. Cadoux-Hudson, M.C., resigned.

HONOURS AND AWARDS

GEORGE CROSS

It was announced on 13th April in a Supplement to *The London Gazette* of 9th April that The Queen had been graciously pleased to approve the award of the George Cross to the undermentioned :—

Lieutenant Terence Edward Waters (deceased), The West Yorkshire Regiment (The Prince of Wales's Own), attached The Gloucestershire Regiment,

and

Fusilier Derek Godfrey Kinne, The Royal Northumberland Fusiliers,

in recognition of gallant and distinguished services whilst prisoners of war in Korea.

APPOINTMENTS

WAR OFFICE.—Major-General J. C. Walkey, C.B., C.B.E., appointed Engineer-in-Chief (20th April, 1954).

Brigadier (temporary Major-General) C. J. C. Dalton, C.B.E., appointed Director of Manpower Planning (July, 1954).

Brigadier G. A. Bond, C.B.E., appointed Inspector, Royal Army Service Corps, with the temporary rank of Major-General (July, 1954).

Brigadier W. G. H. Pike, C.B.E., D.S.O., appointed Director of Staff Duties, with the temporary rank of Major-General (August, 1954).

Colonel Mary Railton, C.B.E., appointed Director, Women's Royal Army Corps, with the temporary rank of Brigadier (September, 1954).

Lieut.-General Sir Colin B. Callander, K.B.E., C.B., M.C., appointed Military Secretary to the Secretary of State for War (Autumn, 1954).

Lieut.-General Sir A. James H. Cassels, K.B.E., C.B., D.S.O., appointed Director General of Military Training (Autumn, 1954).

UNITED KINGDOM.—Major-General A. D. Campbell, C.B., C.B.E., D.S.O., M.C., appointed G.O.C. Aldershot District (8th February, 1954). Substituted for the notification in the May, 1953, JOURNAL.

Colonel (temporary Brigadier) V. D. G. Campbell, D.S.O., O.B.E., appointed Chief of Staff, Headquarters, Scottish Command, with the temporary rank of Major-General (1st March, 1954).

Major-General E. H. W. Cobb, C.B., C.B.E., appointed Commandant, Royal Military College of Science (August, 1954).

GERMANY.—Lieut.-General Sir Hugh C. Stockwell, K.B.E., C.B., D.S.O., appointed G.O.C. I Corps (Autumn, 1954).

MIDDLE EAST LAND FORCES.—Brigadier W. G. Fryer, C.B.E., appointed Chief Engineer, with the temporary rank of Major-General (March, 1954).

Brigadier A. E. Morrison, O.B.E., appointed Chief Signal Officer, with the temporary rank of Major-General (June, 1954).

Brigadier (temporary Major-General) G. E. R. Bastin, O.B.E., appointed Major-General i/c Administration (June, 1954).

FAR EAST LAND FORCES.—Brigadier D. D. C. Tulloch, D.S.O., M.C., A.D.C., appointed G.O.C. Singapore District, with the temporary rank of Major-General (April, 1954).

Brigadier E. C. Colville, D.S.O., appointed Chief of Staff, with the temporary rank of Major-General (July, 1954).

KOREA.—Brigadier C. E. R. Hirsch, C.B.E., appointed Deputy Chief of Staff to Supreme Commander U.N. Forces, with the temporary rank of Major-General (May, 1954).

PAKISTAN.—Colonel (temporary Brigadier) T. P. D. Scott, C.B.E., D.S.O., appointed Training Adviser (Major-General), Pakistan Army, with the temporary rank of Major-General (June, 1954).

WASHINGTON.—Major-General G. E. Prior-Palmer, C.B., D.S.O., appointed Commander, British Army Staff, and Military Member, British Joint Services Mission, Washington (6th January, 1954). Substituted for the notification in the February, 1954, JOURNAL.

SPECIAL EMPLOYMENT.—General Sir John F. M. Whiteley, K.C.B., C.B.E., M.C. (1st January, 1954). Substituted for the notification in the February, 1954, JOURNAL.

PROMOTIONS

General.—Lieut.-General to be General :—Sir Gordon H. A. MacMillan of MacMillan (of Knap), K.C.B., C.B.E., D.S.O., M.C., D.L. (1st January, 1954).

Lieut.-Generals.—Temporary Lieut.-Generals or Major-Generals to be Lieut.-Generals :—W. J. Eldridge, C.B., C.B.E., D.S.O., M.C. (1st January, 1954); Sir A. James H. Cassels, K.B.E., C.B., D.S.O. (2nd February, 1954).

Major-General to be temporary Lieut.-General :—E. O. Herbert, C.B., C.B.E., D.S.O. (14th December, 1953).

Major-Generals.—Temporary Major-Generals, Brigadiers, or Colonels to be Major-Generals :—R. C. Cottrell-Hill, C.B., C.B.E., D.S.O., M.C. (27th December, 1953); J. G. Cowley, C.B., C.B.E., A.M. (1st January, 1954); L. N. Tyler, O.B.E., B.Sc., M.I.Mech.E. (29th January, 1954).

Brigadiers or Colonels to be temporary Major-Generals :—A. J. H. Dove, C.B., C.B.E. (1st February, 1954); E. S. Lindsay, C.B.E., D.S.O. (1st February, 1954); R. G. S. Hobbs, D.S.O., O.B.E. (25th February, 1954); W. R. Cox, D.S.O. (1st March, 1954); V. D. G. Campbell, D.S.O., O.B.E. (1st March, 1954).

RETIREMENTS

The following General Officers have retired :—Major-General J. M. Kirkman, C.B., C.B.E. (22nd January, 1954); Major-General S. W. Joslin, C.B., C.B.E., M.A., M.I.Mech.E., M.I.E.E. (29th January, 1954); Lieut.-General Sir Kenneth G. McLean, K.C.B., K.B.E. (2nd February, 1954); Major-General H. C. Goodfellow, C.B., C.B.E., A.M.I.Mech.E. (5th April, 1954); Major-General M. Lea-Cox, C.B., C.B.E. (6th April, 1954); General Sir Frank E. W. Simpson, G.B.E., K.C.B., D.S.O., B.A. (16th April, 1954).

ARMY ESTIMATES, 1954-55

The Army Estimates for 1954-55 were published on 24th February. Excluding the receipts arising from the sterling counterpart of aid received from the United States, the Army Estimates for 1954-55 amounted to a gross expenditure of £628,500,100 reduced by appropriations in aid to the net figure of £561,000,100 shown in the White Paper on Defence (£581,000,000 in 1953-54). Estimates for the main items of expenditure, with 1953-54 estimates given in parentheses, were as follows :—Army Pay, £123,080,000 (£126,290,000); Reserve Forces, Territorial Army, Home Guard, and Cadet Forces, £21,310,000 (£18,290,000); War Office, £3,200,000 (£3,020,000); Civilian Pay, £62,740,000 (£60,090,000); Movements, £34,450,000 (£35,070,000); Supplies, £53,040,000 (£53,713,000); Stores including clothing, guns and ammunition, mechanical transport, signals and wireless equipment, and miscellaneous warlike stores, £184,000,000 (£175,397,000); Works, Buildings and Lands, £30,700,000 (£32,400,000); Miscellaneous Effective Services, £3,520,000 (£3,820,000); Non-effective Services, £18,960,000 (£17,910,000).

Points made in the Estimates and in the accompanying memorandum by the Secretary of State for War included the following :—

Manpower. A disturbing feature of the manpower position was the declining number of Regulars with over six years' service. Any early improvement must depend on getting more to prolong their engagements, but the number doing so caused concern.

In 1954-55, the strength of the Army would decrease by some 13,000 men. The intake of National Service men would be 6,000 fewer, and the total of National Service men serving in March next was expected to be 20,000 fewer than in March, 1954.

The build-up of the Reserve Army had continued steadily and the peak would be reached after next June. The number of volunteers for the Army Emergency Reserve had been disappointing.

Soldiers' Families. An inquiry was being made by a departmental committee into the problem of making life as easy as possible for the wives of soldiers forced to remain in this country when their husbands went overseas. Of the married men serving overseas, two-thirds were separated from their wives.

Training. All possible steps were being taken to ensure that the introduction of atomic weapons would find the Army well prepared in their offensive use and in defence.

Tanks. Progress had been made with the development of the new heavy-gun tank and some would be tried out in Germany this year. The Regular Army was fully equipped with the Centurion tank.

Weapons. Considerable progress had been made in re-equipping the Infantry with the latest weapons. The Energa grenade and the 3.5-in. rocket launcher were in general issue. The old 17-pounder anti-tank gun was being replaced by the lighter and more powerful 120-mm. recoilless gun. Another new weapon, a light anti-aircraft gun for defence against low-flying aircraft, had been introduced; it was an improvement on the Bofors, and included a fast power traverse. Five thousand of the new Belgian F.N. rifles had been ordered for immediate troop trials in all theatres, and production orders for 10 million rounds of the new .300-in. calibre had been given in this country. New and more powerful mines to deal with heavier tanks had been issued, and a mechanical mine-layer, designed to speed the laying of minefields, was in service.

Bridging. First deliveries of a heavy girder bridge of new design, based on the Bailey type of construction, was in production. It was capable of carrying the heaviest tanks in the Service. Bailey bridge parts were being converted to take the new tanks.

Wireless. Production of new wireless sets would begin this year.

Married Quarters. Provision had been made for work on 980 married quarters to be started during the year in home commands, and for further work on 1,100 married quarters on which work was begun before 1st April, 1954.

On 11th March, the Secretary of State for War, Mr. Head, when speaking on the Estimates, announced a system whereby married Regular soldiers in Kenya and the Middle East who were separated from their families would have one free flight home on leave each year after nine months in the theatre. In the second year of their overseas tour, all parents whose children for educational and other reasons were at home would be allowed to have them out on holiday for not less than 28 days. Families in Europe would be given one free passage home every three years.

Mr. Head also stated that he ranked with the need to keep Regulars in the Army the importance of retaining volunteers in the Territorial Army, and announced measures to this end. An attempt would be made to reduce drills to 50 a year. The field for commissions would be widened. Extra officers were to be provided so that every minor unit would have one full-time officer and every major unit three. A training cycle of four years was to be introduced and the volunteer and part-time volunteer would qualify for the increased rates of pay recently introduced.

VISIT OF THE C.I.G.S. TO KENYA

Field-Marshal Sir John Harding, Chief of the Imperial General Staff, left London by air on 25th February for Kenya. He returned to London on 12th March.

RELIEF OF 16TH PARACHUTE BRIGADE

It was reported in the Press on 19th March that it is intended to send the 51st Infantry Brigade to the Middle East to relieve the 16th Parachute Brigade, which has been abroad since June, 1951. The relief will be made by transferring a battalion at a time, probably beginning in May, but much will depend on the situation in the Suez Canal Zone and elsewhere in the Middle East.

ARMY RECRUITING

The Regular Army recruiting statistics for March show that the total number of enlistments from civil life during the month were 2,910 men and 428 boys compared with 2,546 and 156 in January and 2,379 and 350 in February. The figures for re-enlistments were 6 from Short Service (January, 3; February, 6) and 521 from National Service (January, 400; February, 408).

THE NEW HEAVY-GUN TANK

It was reported by the War Office and the Ministry of Supply on 6th April that the Conqueror, the new heavy-gun tank, is in limited production. This tank will be complementary to and not a replacement of the Centurion. The British Army in Germany will begin troop trials with the Conqueror within the next two or three months.

The new tank is more heavily armoured than the Centurion and is rather larger. The gun is more powerful than the Centurion's 20-pounder and will have the latest system for controlling its fire. Powered by the latest type of Meteor engine and manned by a crew of four, the Conqueror is quick off the mark and shows a good turn of speed. For its size, it is easily manoeuvred.

WAR MEMORIALS

4TH INDIAN DIVISION

A pair of standard candlesticks presented by the British members of the 4th Indian Division was dedicated in the Royal Military Memorial Chapel at Sandhurst on 28th March, as a Memorial to members of the Division who died in the 1939-45 War. The Memorial was dedicated by the Reverend G. R. Whitcombe, chaplain of the R.M.A., Sandhurst, and the address was given by the Reverend T. Walters, who was chaplain of the Division from 1939 to 1942. The candlesticks were presented on behalf of the Division by Major-General D. R. Bateman and Brigadier Sir John Hunt, both of whom commanded brigades of the Division.

DOMINIONS AND COLONIES

CANADA

PRIME MINISTER OF CANADA VISITS 1ST CANADIAN INFANTRY BRIGADE.—The Rt. Hon. Louis St. Laurent, Prime Minister of Canada, visited the 1st Canadian Infantry Brigade in Germany on 11th February.

APPOINTMENTS.—Brigadier F. A. Clift, D.S.O., E.D., will become Commander, 25th Canadian Infantry Brigade, in Korea in June in succession to Brigadier J. V. Allard, C.B.E., D.S.O., E.D.

Brigadier G. Kitching, C.B.E., D.S.O., C.D., has been appointed Commander, 2nd Canadian Infantry Brigade at Wainwright, and will become Chief of Staff, Western Command, next Autumn.

Brigadier M. P. Bogert, C.B.E., D.S.O., C.D., has been appointed Commandant, Canadian Army Staff College, at Kingston.

Brigadier E. C. Brown, O.B.E., C.D., has been appointed Deputy Adjutant-General.

Colonel A. J. B. Bailey, D.S.O., O.B.E., E.D., will become Director of Artillery at Canadian Army Headquarters in July.

1ST CANADIAN LIGHT ANTI-AIRCRAFT REGIMENT.—The 1st Canadian Light Anti-Aircraft Regiment, the first peace-time anti-aircraft regiment of the Canadian Army Active Force, has been formed as a unit of the 1st Canadian Infantry Division.

CANADIAN ARMY REGULAR RESERVE.—In order to encourage those who have served in Korea and other trained troops to continue their army association after their release, an additional category of the Reserves, to be known as the Canadian Army Regular Reserve, has been formed. It will consist of men who have completed an engagement with the Active Force and who do not wish to re-engage for full-time service, but are willing to serve in the Regular Reserve.

Members of the Regular Reserve will be enrolled for three-year periods and will carry the rank and trade qualifications they held on release from the Active Force. In return for an annual re-training grant of \$100 and the pay and allowances of their rank and trade qualification for the period of full-time service each year (not exceeding 21 days), they will (a) be liable to call-out on active service whenever required by the Governor-in-Council, and (b) serve full-time on annual training whenever required by the Chief of the General Staff.

Those who were released prior to the formation of the Canadian Army Regular Reserve may enrol providing they are acceptable and not more than two years have elapsed since their release from the Active Force. This period will be reduced to one year on 30th June.

SOLDIER APPRENTICES.—An estimated 500 youths aged 16 will be enrolled as soldier apprentices in the Canadian Army this Summer. This will be the third intake in the apprenticeship programme since its institution in January, 1953. Subsequent intakes will be on an annual basis. The apprentices are enrolled for a seven-year engagement with the option of obtaining release after five years' service. They undergo specialized training in army trades at corps schools in different parts of Canada. Academic training, for which recognized civilian credits are available, is included in the programme during their first two years. Applicants must have grade eight education or the equivalent and a good school record as well as parental or guardian consent.

MILITARY EQUIPMENT SENT TO EUROPE.—More than 1,000,000 rounds of Canadian ammunition of various calibres for the Portuguese Army, a smaller amount for the French Army, and a quantity of spare parts and repair kits for vehicles and rifles for the Royal Danish Army were shipped from Canada in January. Sixteen cases of maintenance stores for radar for the United Kingdom, a quantity of maintenance stores and a supply of electrical equipment for France, a quantity of electronic valves and tubes for Belgium, 184 military trucks for Turkey, maintenance stores for vehicles and wireless sets for France and Portugal respectively, and 800 tons of materials for Italy were despatched in February and March. A hundred three-ton military lorries were shipped to the Turkish Army in April.

AUSTRALIA

H.M. THE QUEEN.—On 17th February, The Queen presented new Colours to the staff cadets at the Royal Military College, Duntroon, where she reviewed and addressed a parade at which both the Duke of Edinburgh and the Governor-General were present.

It has been officially reported that more than 70,000 members of the Australian Army were engaged on duties directly connected with the Royal visit. These duties included guards, parades, and all other army requirements for the many spectacular occasions.

APPOINTMENTS.—Brigadier H. G. F. Harlock, C.B.E., became G.O.C. Northern Command, with the temporary rank of Major-General, when Major-General V. C. Secombe, C.B.E., retired on 4th April, with the honorary rank of Lieut.-General.

Brigadier J. G. N. Wilton, D.S.O., O.B.E., has become Brigadier i/c Administration, Headquarters, Eastern Command, Sydney.

Colonel I. T. Murdoch, O.B.E., has been promoted to Brigadier and appointed to command the 28th British Commonwealth Brigade in Korea.

NEW ZEALAND

H.M. THE QUEEN

The Queen and the Duke of Edinburgh visited the military camp at Burnham on 22nd January, where Her Majesty inspected five companies of young New Zealanders, all of whom, at the age of 18, are required to serve a minimum of 10 weeks with the Colours.

INDIA

MERGER OF CAVALRY REGIMENTS

It was reported from New Delhi on 27th March that it had been decided to merge the various cavalry units taken over from the former Indian State Forces into one cavalry regiment, which would be known as the 61st Cavalry Regiment. This combined regiment would consist of four of India's famous cavalry regiments, all with distinguished military records and many battle honours: the Gwalior Lancers, the Mysore Lancers, the Jodhpur Sardar Risala, and the Jaipur Horse.

CEYLON

H.M. THE QUEEN

The Queen presented New Colours to the Ceylon Light Infantry and inspected the Regiment and other military detachments at Colombo on 21st April.

BERMUDA

BRITISH GARRISON RE-ESTABLISHED

Prior to returning to England from Bermuda after his conference with President Eisenhower and M. Laniel, Sir Winston Churchill announced on 9th December that the British garrison on the island would shortly be re-established. On 28th January, it was announced in Hamilton that the new garrison would consist of a company of The Duke of Cornwall's Light Infantry and an administrative staff and personnel, and that most of the troops would arrive in February or March, and the remainder in June.

The Bermuda garrison was withdrawn in April, 1953, for economy reasons, following the closing of H.M. Dockyard two years earlier.

FOREIGN

NORWAY

EXTENSION OF ARMY SERVICE

After a heated debate in the *Storting* on 10th-11th February, the Government decided to adopt a compromise solution by increasing the period of army service from 12 to 16 months (instead of the proposed 18 months), plus a 30-day refresher course every third year with a maximum of four such courses. A Bill implementing these proposals was introduced on 26th February and passed by the *Storting* on 18th March.

RUSSIA

NEW COMMANDER-IN-CHIEF IN AUSTRIA

General Biryuzov has succeeded General Sviridov as Soviet C.-in-C. in Austria.

NOTICE

EXHIBITION DEPICTING THE HISTORY OF THE ROYAL SUSSEX REGIMENT

An exhibition of pictures, relics, decorations, and other museum exhibits depicting the history of The Royal Sussex Regiment will take place in the Townner Art Gallery, Eastbourne, in August. The curator will be glad to hear from those who have appropriate items for display.

AIR NOTES

GREAT BRITAIN

H.M. THE QUEEN

On 11th March, the Princess Margaret presented THE STANDARD to No. 605 (County of Warwick) Squadron at its base, R.A.F. Station, Honiley, near Kenilworth. This Squadron, which was the first to receive jet aircraft—the Vampire—is one of the earliest Auxiliary squadrons. It is commanded by Squadron Leader P. M. R. Walton, and the Hon. Air Commodore is Air Commodore J. A. C. Wright, A.F.C., T.D., D.L.

APPOINTMENTS

AIR MINISTRY.—Air Marshal Sir Donald Hardman, K.C.B., O.B.E., D.F.C., appointed Air Member for Supply and Organization (1st May, 1954).

Air Vice-Marshal H. V. Satterly, C.B., C.B.E., D.F.C., appointed A.C.A.S. (Operational Requirements) (July, 1954).

Air Commodore S. R. Ubee, C.B., A.F.C., appointed Director-General of Personnel (II) with the acting rank of Air Vice-Marshal (March, 1954).

Air Commodore L. T. Pankhurst, C.B.E., appointed Director-General of Postings with the acting rank of Air Vice-Marshal (April, 1954).

INSPECTOR-GENERAL.—Air Marshal Sir Charles E. N. Guest, K.B.E., C.B., appointed Inspector-General of the Royal Air Force (19th April, 1954).

COASTAL COMMAND.—Air Vice-Marshal G. W. Tuttle, C.B., O.B.E., D.F.C., appointed A.O.C., No. 19 Group (August, 1954).

TRANSPORT COMMAND.—Air Vice-Marshal G. R. Beamish, C.B., C.B.E., appointed A.O.C.-in-C. (15th March, 1954).

FLYING TRAINING COMMAND.—Air Vice-Marshal N. S. Allinson, C.B., appointed Air Officer in charge of Administration (June, 1954).

MIDDLE EAST AIR FORCE.—Air Vice-Marshal D. H. F. Barnett, C.B.E., D.F.C., appointed A.O.C., No. 205 Group (May, 1954).

PROMOTION

Air Commodore to be acting Air Vice-Marshal.—J. G. W. Weston, C.B., O.B.E. (5th February, 1954).

RETIREMENTS

Air Chief Marshal Sir Robert M. Foster, K.C.B., C.B.E., D.F.C., placed on the retired list at his own request in order to facilitate the promotion of younger officers (1st February, 1954).

Air Chief Marshal Sir John Whitworth Jones, K.C.B., C.B.E., placed on the retired list (May, 1954).

Air Marshal Sir Alick C. Stevens, K.B.E., C.B., placed on the retired list (14th December, 1953).

Air Vice-Marshal C. P. Brown, C.B., C.B.E., D.F.C., placed on the retired list on account of medical unfitness for Air Force service (15th March, 1954).

Air Vice-Marshal W. E. Theak, C.B., C.B.E., placed on the retired list (17th March, 1954).

Air Commodore (acting Air Vice-Marshal) C. E. H. Allen, C.B., D.F.C., B.A., M.I.Mech.E., placed on the retired list retaining the rank of Air Vice-Marshal (15th March, 1954).

AIR ESTIMATES

The net expenditure provided for the Royal Air Force for 1954-55 amounts to £491,640,000, compared with £498,000,000 for 1953-54. It provides for a maximum of 288,000 officers, airmen, and airwomen, compared with 302,000 for the previous year. The main reason for this decrease in personnel is a contraction of the flying training organization, which had been enlarged in the initial stages of the expansion programme.

In introducing the Air Estimates in the Commons, the Under-Secretary of State for Air, the Hon. George Ward, made the following main points:—

Operations.—The Korean armistice had brought a diminution of the flying-boat activities over the Tsushima Straits, but in Malaya air activity in all forms had been doubled. In Kenya, Lincoln bombers had been used to harass Mau Mau terrorists in thick forests and drive them into more open areas. The hours flown by operational squadrons were 20 per cent. higher than in 1952.

Equipment.—(i) Bombers. The first production Valiant had already flown. The development of the Vulcan and Victor was going well and should not be far behind the Valiant. The performance of the bombers shortly coming into service would be three times greater than their counterparts of 1945.

(ii) Fighters. In Fighter Command, the first squadron had been re-equipped with Swifts. The Hunter was due to take its place in the Command this year, while the development of the Javelin, which should be able to fly and fight at 50,000 feet at a speed of 600-700 m.p.h., was going well. The size of the present night fighting force was being nearly doubled.

(iii) Guided Missiles. Mr. Ward said he was of the opinion that the guided weapon would supplement the piloted aircraft but would never supplant it.

Personnel.—There was a definite need for more pilots, navigators, and skilled tradesmen. All possible steps were being taken to increase the number of these.

Air Movements.—Air trooping was now a well-established means of Service movement, and during the past year approximately 90 per cent. of all troop movements to the Middle East were made by air.

OPERATIONS

BOMBING ATTACKS ON MAU MAU HIDE-OUTS.—Between April, 1953, and January, 1954, Harvard aircraft carried out 578 attacks involving 1,708 sorties, and dropped 20 lb. bombs to the total weight of 110 tons. Lincoln aircraft carried out 17 attacks involving 40 sorties and dropped 500 lb. and 1,000 lb. bombs to a total weight of 110 tons. In giving these figures, Mr. Hopkinson, Secretary of State for the Colonies, added that there was evidence to show that the bombing had been effective.

POLICING ADEN BY AIR.—With the eighth supply airstrip completed in the mountainous hinterland of the Aden Protectorate, the R.A.F. is now able to fulfil obligations to local rulers by keeping security forces victualled and equipped entirely by air. Complete air supply has effected considerable savings of manpower, materials, time, and money.

FLIGHTS

FIRST POLAR TRIALS BY R.A.F. JET AIRCRAFT.—Aries IV, the Canberra of the R.A.F. Flying College, returned to Manby at the beginning of March after completing more than 14,000 miles of flying on Arctic navigational research during a period of two weeks. It operated in the vicinity of the North Magnetic Pole. It returned from Montreal, a distance of 3,300 miles, in 6 hours 15 minutes. This is the longest flight yet carried out by a standard B2 Canberra.

FAR EAST TRANSPORT WING.—In 12 months' concentrated passenger flying, this Wing has flown more than 2,000,000 miles without incident.

TRAINING

NEW FLYING COLLEGE COMMANDANT.—Air Commodore G. A. Walker, C.B.E., D.S.O., D.F.C., has been appointed Air Officer Commanding the Royal Air Force Flying College, Manby.

WINGS PARADE IN NORTHERN IRELAND.—The first R.A.F. Wings parade was held at R.A.F. Station, Cluntoe, near Cookstown, Co. Tyrone, on 10th February, when 17 newly graduated pilots of No. 2 Flying Training School were presented with their wings by Brigadier J. A. Sinton, V.C., O.B.E., High Sheriff for Co. Tyrone.

ORGANIZATION

HEADQUARTERS MOVE

The Headquarters of No. 24 Group, Technical Training Command, moved from Aylesbury to R.A.F. Station, Spitalgate, in March.

RESERVES

AFFILIATION OF R.N.Z.A.F. TERRITORIAL SQUADRONS WITH ROYAL AUXILIARY AIR FORCE SQUADRONS.—The following squadrons are now affiliated:—No. 1 Auckland (T) Squadron with No. 600 (City of London) Squadron; No. 2 Wellington (T) Squadron with No. 601 (City of London) Squadron; No. 3 Canterbury (T) Squadron with No. 610 (County of Chester) Squadron; No. 4 Otago (T) Squadron with No. 603 (City of Edinburgh) Squadron.

A.T.C.—During 1953, 1,386 cadets reached the gliding proficiency standard and 45 passed their advanced test. Well over 1,000 boys have now been taught to fly light aircraft under the scholarship scheme and 80 are now under instruction at civilian flying clubs.

DOMINIONS AND COLONIES

CANADA

SENIOR OFFICERS' APPOINTMENTS.—Air Vice-Marshal C. R. Dunlap, C.B.E., C.D., Commandant of the National Defence College, Kingston, Ontario, is being transferred to Air Force Headquarters, Ottawa. Air Vice-Marshal M. Smith, C.B.E., C.D., Air Member for Technical Services, is being appointed Chairman, Canadian Joint Staff, London, and Canadian National Military Representative to S.H.A.P.E.

NEPTUNE AIRCRAFT FOR R.C.A.F.—Arrangements have been made for the R.C.A.F. to acquire Lockheed P2V Neptunes for use by its maritime squadrons. The first of the new aircraft will be taken over by the R.C.A.F. towards the end of this year.

NEW TYPE SABRES FOR R.C.A.F. SQUADRONS IN EUROPE.—Canada's Defence Minister, Mr. Claxton, has announced that Canada had begun re-equipping her fighter squadrons in Europe with Orenda-powered Sabre 5s, and that the ferrying of the first 15 of a total of 300 to Europe started on 11th February. The J-47-powered Sabres at present in use by the R.C.A.F.'s No. 1 Air Division are to be turned over to other N.A.T.O. air forces as part of Canada's mutual aid programme and will be accompanied by a quantity of spare J-47 engines supplied by the U.S.A.

EXPANSION PROGRAMME.—The R.C.A.F. is expected to complete its current \$400 million expansion programme for air bases, training bases, and gunnery ranges by the end of 1954. The construction programme is centred on runway extensions at permanent bases and the re-activation of 1939-45 War training stations. Civil airport runways are also being extended for possible Service use. Other work includes the building of large hangars, the construction of two large material and repair bases, and the extension of the radar coverage.

AUSTRALIA

R.A.A.F.'s PART IN THE ROYAL TOUR.—More than 100 aircraft of the Royal Australian Air Force were allocated for commitments with the Royal Tour, and in all H.M. The Queen and H.R.H. the Duke of Edinburgh flew more than 5,000 miles in R.A.A.F. aircraft.

On 15th February, there was a salute by 100 R.A.A.F. aircraft at the opening of Federal Parliament, Canberra, while on 6th March, there was a Royal inspection of 800 R.A.A.F. and W.R.A.A.F.

V BOMBERS FOR AUSTRALIA.—Future plans for the Royal Australian Air Force include the purchase from Britain of 24 V bombers. The cost of each of these bombers has been given as about £1,000,000.

R.A.F. POST FOR R.A.A.F. OFFICER.—Air Commodore C. D. Candy, O.B.E., R.A.A.F., has been appointed Senior Air Staff Officer, No. 3 Group, Bomber Command.

NEW ZEALAND**H.M. THE QUEEN**

On 28th December, The Queen, accompanied by the Duke of Edinburgh, visited the Whenuapai air station, where Her Majesty presented Colours to the Royal New Zealand Air Force.

FOREIGN**FRANCE****FIGHTERS**

It has been reported that on 2nd February the Mystère IVb (French-built interceptor day fighter), fitted with a Rolls Royce Avon R.A.7 engine, exceeded Mach 1 for the first time. Altogether, in the course of one flight from Melun/Villaroche airfield on that date, test pilot Colonel Rozanoff took the aircraft through the sound barrier five times in succession. During a later test, Colonel Rozanoff crashed and was killed.

JAPAN

JAPANESE AIR FORCE REBORN.—The 10th January saw the official rebirth of Japan's Air Force, which has six units or wings, each consisting of 18 light liaison aircraft, located in different parts of the country with headquarters at Hamamatsu in Shizuoka, where the flying training school is located. These units form part of the national safety force, and it is expected that within the next two years they will be equipped with modern fighters and later with long-range reconnaissance aircraft. The strength of the Japanese Air Force has still to be decided, but the general impression is that it will consist of 1,000 aircraft and about 150,000 men.

SABRES FOR JAPAN.—The Japanese Air Force will have 143 aircraft, including some F-86E Sabres and F-94C Starfires by the middle of this year, according to General Kenkichi Masuhara, Deputy Director of the Japanese National Safety Board.

RUSSIA

RUSSIAN BOMBER DETAILS.—Photographs of Russia's newest heavy bombers smuggled from behind the Iron Curtain were published in *Aviation Week*. They are said to be the first ever seen in the West of the six-engined Tupolev 200 and four-engined Ilyushin 38. The magazine reports that it has learned that the Russians have 400 of the new aircraft based in Northern Russia and Siberia across the polar icecap from the U.S. and Canada. "Reconnaissance versions have made routine observation flights above Alaskan and Canadian defence perimeters" states *Aviation Week*. The Tu-200 is apparently known colloquially in Russia as the Amerika. It closely resembles the U.S.A.F.'s giant Convair B.36, which has six piston engines and four jet plants on the

wing tips. Pictures show the Tu-200 as having five remotely controlled gun turrets, each probably containing twin 20-mm. cannon and possibly a radar-controlled tail turret. The aircraft is 200 feet long, has a wing span of 236 feet, a top speed of 465 m.p.h., a range of 4,800 miles, and a ceiling of 50,000 feet. The Ilyushin 38 has a span of 168 feet, a length of 132 feet, top speed of 480 m.p.h., a ceiling of 50,000 feet, a range of 3,000 miles, and apparently carries a crew of eight. It looks very like the American B.52 Strato-fortress, which has eight jet engines.

"NO RUSSIAN NIGHT FIGHTERS."—A Swedish Defence Staff publication which appeared in Stockholm recently said that the Soviet Air Force lacks modern night fighters. "Russia has no special night fighters with built-in effective radar equipment in service", it added, and went on to remark that the Russians must certainly be working frantically to produce both night fighter aircraft and radar sites. "But their fighter defences against radar-equipped bombers are undoubtedly very weak", it concluded.

MORE MIG VARIANTS.—Existence of Russian fighter prototypes with designations MIG-16, MIG-17, MIG-18, MIG-19, MIG-20, and MIG-21, is reported. Hitherto only the twin-engined MIG-17 (sometimes known as the Super MIG or Fat MIG) had been known to exist, although there had been allusions to a MIG-19. The six above-mentioned MIG aircraft are being tested at Novosibirsk in western Siberia. Also undergoing tests at Novosibirsk is the twin-engined EF-150 jet bomber, which is now in production at Kuibyshev.

SWEDEN

ROYAL SWEDISH AIR FORCE

Major-General Axel Ljungdahl is to become C.-in-C. Major-General Ljungdahl, who is 57 years of age, was Swedish Air Attaché in London from 1935 to 1936. Taking up his post on 1st July, he will succeed General Nordenskiöld.

SWITZERLAND

SWISS ORDER MORE VENOMS

The Swiss Government is reported to have ordered another 100 de Havilland Venom fighter-bombers for the Swiss Air Force. The Venom and its Ghost engine are built under licence in Switzerland.

UNITED STATES

AN AIR POWER BUDGET.—Increased expenditure for the U.S.A.F., at the cost of reductions in the U.S. Navy and Army appropriations, is one of the main features of the budget proposed by President Eisenhower for the financial year beginning on 1st July, and totalling some £23,400 million. The U.S.A.F. share of £5,800 million is the largest air appropriation since the end of the war and, in his budget speech, President Eisenhower said that his new concept for security was to make hard-hitting air power the chief arm of the nation's defence, while cutting down the ground forces.

SIZE OF U.S.A.F.—The Defence Secretary recently announced that the U.S.A.F. would have "at least 115 wings by 30th June, 1954". He also stated that an interim goal of 127 wings by 1956 had been agreed upon by the Joint Chiefs of Staff, but that this figure might well be altered by the J.C.S. "New Look" plan which is still under discussion.

Washington sources reported that this goal would be increased to one of 137 wings in the next budget, but that the personnel ceiling would remain at 975,000. It is of interest that in 1951 the Defence Department estimated that 973,000 personnel were required to man and maintain a 95 wing Air Force.

PILOT TRAINING PROGRAMME.—The U.S.A.F. plans to increase its pilot training rate from 7,200 to 7,800 a year during the current fiscal year, and aims to have 30,000 pilots by mid-1957, when the 137 wing target is scheduled to be attained.

THE U.S.A.F. 100 SERIES SUPERSONIC FIGHTERS.—In March, the Lockheed made its first flight with the straight-winged F-104, and the U.S.A.F. released first details of Convair's delta-winged F-102. These are the second and third aircraft in the U.S.A.F.'s newest batch of supersonic aircraft. Testing and production of the first of this series, the North American F-100, is now moving along at a fast pace. McDonnell's F-101, a supersonic version of the company's earlier F-88 jet fighter, is due to fly in the latter half of this year. Neither of Republic Aviation Corp's supersonic fighters, the experimental F-103 nor the delta-winged F-105, is planned for U.S.A.F. production. The Convair F-102 is the U.S.A.F.'s first all-weather supersonic interceptor and is equally significant because it is the first American land-based fighter using the delta-wing configuration. The Convair XF2Y-1 Sea Dart, which flew last Autumn, is the Navy's version of the advanced fighter and bears a remarkably close resemblance, considering it is water-based. In its role as a supersonic interceptor, the F-102's major armament will, it is reported, be the Hughes Falcon air-to-air missile. Eventually it is scheduled to replace the Northrop F-89 series interceptors as well as Lockheed's F-94C in the Air Defence Command. Lockheed's F-104, by contrast, is essentially a new brand of weapon, the U.S.A.F.'s closest equivalent of the stripped-down fighter. It is officially termed a lightweight air superiority fighter, a type designed to provide high-speed fire-power in a relatively concentrated area. The F-104 is powered by the Wright J65 Sapphire engine, officially rated at 7,200 lb. thrust.

AIR FORCE ACADEMY.—The House of Representatives has passed a Bill, first introduced into Congress in 1949, to establish a separate Air Force Academy on a site still to be chosen, and has voted \$26,000,000 as an initial grant. In testimony before the House Armed Services Committee, the Air Force Secretary stated that the need for an air academy was immediate and urgent in order to help overcome the present shortage of young officers. The Bill, which has the President's support, is now in the Senate, and is expected to receive assent.

UNITED STATES 3RD AIR FORCE IN BRITAIN.—Major-General R. C. Wilson is to succeed Major-General F. Griswold as Commander. General Griswold will become Vice-Commander of the Strategic Air Command on 1st May.

EIGHTEEN U.S. MISSILES LISTED.—Eighteen missiles and their designations have been listed by the U.S. Defence Department. The missiles include: Surface-to-air—Army Nike I (XSAM-A-7) and the Navy Talos (XSAM-N-6), Terrier I (XSAM-N-7), and Talos, W (XSAM-N-6). Surface-to-surface—Army Corporal (XSSM-A-17), Air Force Matador (B-61) and Snark (B-62), and Navy Regulus (XSSM-N-8, XSSM-N-8A). Air-to-surface—Air Force Rascal (B-63) and Navy Dove (XASM-N-4), Petrel (XAUM-N-2), and Gorgon V (XASM-N-5). Air-to-air—Air Force Falcon (F-95) and Navy Sparrow I (XAAM-N-2), Sparrow II (XAAM-N-3), Sparrow III (XAAM-N-6), Oriole (XAAM-N-4), and Sidewinder (XAAM-N-7).

VERTICAL TAKE-OFF FIGHTERS.—Reports that five American firms (Ryan, Bell, Collins, Convair, and Lockheed) are each developing a fighter capable of vertical take-off and landing were followed by a press photograph of a device seen at Convair's San Diego plant. The machine, mounted vertically in a structure, has contra-props mounted on top and the engine is reported to be a T-40 turboprop of 5,500 h.p.

JET TRAINER.—Lockheed has begun flight testing a new two-seater jet trainer (similar in appearance to the T-33 Shooting Star trainer) said to be capable of high speeds. The seating is in tandem, and the aircraft is said to be capable of being used for air-firing and bombing practice.

ATOMIC BOMBS FOR ALL U.S.A.F. AIRCRAFT.—Plans to equip all American fighter planes as well as bombers with atomic weapons for tactical use against ground forces were announced on 15th March by General N. Twining, the U.S.A.F. Chief of Staff. He told the Armed Services Sub-Committee of the Senate Appropriations Committee that it was also the Air Force's policy to be able to deliver atomic missiles on a round-the-clock basis, regardless of weather.

U.S.A.F. HAS 'DELIVERABLE' H-BOMB.—The United States now has a 'deliverable' hydrogen bomb and the aircraft to take it to any target in the world, Mr. W. S. Cole, chairman of the Congressional Atomic Energy Committee, said on 16th March. He added that Russia also had a hydrogen bomb that could be delivered. It was known that Russia had set off a hydrogen explosion. His statement, while not a surprise, was official confirmation of what had been known generally for some time. Previous official statements had referred only to explosion by the United States of a 'hydrogen device.'

H-BOMB FIGURES.—The hydrogen bomb explosion at Bikini on 1st March was 600 times as destructive as the atomic explosions at Nagasaki and Hiroshima. The energy released was equivalent to more than 12 million tons of T.N.T.

REVIEWS OF BOOKS

GENERAL

The War in France and Flanders 1939-1940. By Major L. F. Ellis, C.V.O., C.B.E., D.S.O., M.C. History of the Second World War, United Kingdom Military Series. (H.M.S.O.) 37s. 6d.

This is the second volume of the series. Designed to produce a broad survey of the campaign, it has not been prepared in such detail as the history of the 1914-18 War. The author's aim has been to present an accurate narrative of events, decisions, and their effects. The book is well arranged. After a brief dissertation on the causes of our weakness in 1939 and an account of the period of the *sitzkrieg*, the main operations are described in chronological order. In each phase of the campaign, narratives of naval and air operations are interpolated so that the activities of the three Services are blended into one story. The maps are clear but an adequate small-scale general map is not provided. There is, however, a valuable reproduction of the German situation map for the evening of 24th May, with Allied dispositions inserted.

It is manifest that the French initial deployment was unsound, added to which they were surprised at the place, time, and strength of the German offensive and could not regain the initiative. The High Command failed to exercise effective control; "vigorous splashing at the centre produced only ripples at the circumference." The much discussed counter-offensive against the 'bulge' was never more than a *project* but it is clear that, until 25th May, Lord Gort remained prepared to co-operate. This must not be confused with his action south of Arras on 21st May, which was intended simply as a local counter-attack. On the other side we see how the enemy applied the 'principle of concentration and maintenance of the object, the latter in spite of anxiety for the security of the southern flank of the 'bulge.' It is revealed in the narrative that the notorious decision to halt the German armour at the Canal Line on 23rd May was not Hitler's but von Rundstedt's, whose reasons are given; and that tanks were not used to assault the bridgehead because of the unfavourable terrain. Losses in armour had already amounted to about 50 per cent.

The conduct of operations on the British side, including the gallant efforts of the R.A.F. to furnish support, is well described; reasons for action taken and their effects are indicated. The author rightly asserts that Lord Gort's decision of 25th May, when the Belgian front began to crack, saved his army from envelopment. Staff work was good throughout, formations invariably acted promptly, forethought was exercised notably in the occupation of the Canal Line, the organization of the Dunkirk bridgehead, and planning for evacuation. The story of the actions south of the Somme does not afford pleasant reading in spite of the efforts of the troops who struggled under a fantastic chain of command.

The penultimate chapter summarizes the air operations and remarks that the bombing of targets in Germany did not obtain the results expected and was a faulty strategic conception. The final chapter contains reflections on the land operations and their conduct by the Allies; the difficulties which beset Lord Gort are clearly indicated. There is also an excellent supplement concerning the German planning and conduct of the campaign. This shows that von Rundstedt initiated the plan adopted, reviews his action in halting his armour on 23rd May, and discusses the causes of the enemy failure to prevent the evacuation. In the first place this failure was mainly due to the fighting qualities of the B.E.F. and the French First Army, to the skill of British leadership and organization, and to German faults and misconceptions rather than to the hold-up of the armour. Secondly, the Germans did not understand the effect of sea power. Dunkirk was not only a triumph of discipline, courage, and organization, but a classic example of co-operation between the three Services.

This is a valuable work; it presents the facts. Among other attributes it provides material for a study of operations with limited resources in the opening stages of a war—a

condition which invariably arises to hamper us. The author pays a well-deserved tribute to our weary divisions who, in the final stages, "moved imperturbably through a crumbling world, upheld by discipline and the tradition of their Service."

The Mediterranean and Middle East, Volume I. By Major-General I. S. O. Playfair and others. History of the Second World War, United Kingdom Military Series. (H.M.S.O.) 35s.

This volume, which describes events up to March, 1941, is the first of a series of six volumes covering the campaigns in the Mediterranean and Middle East. The reader is given a clear and accurate account of what happened in this wide area, together with a number of references to matters of policy and planning to explain why; but the fact of the goodwill towards the British which was entertained by all neutral races in the Middle East is not brought out. The space allotted to the part played by each of the three Services is fairly equally divided. The addition of historical comparisons would have been an advantage, for there is probably no area in the world in which there has been more fighting to the square mile.

In the preface and introduction it is explained how the presentation of the work has been tackled, and sound reasons are given for the absence of documentation in what is a history of 'military' events compiled from official sources. In general, the story is related at the level of the High Command, a middle course being steered between the two extremes of policy and administration and of actual fighting. Where possible, 'the reason why' is given, rather than a bare statement of fact.

The activities of all three Services, which were closely interwoven, are presented as a joint story. Each Service was under its own Commander-in-Chief, who was responsible to his Ministry for matters affecting his own Service. The High Command was a triumvirate, who received directives from the Chiefs of Staff; they, in turn, were directed by the War Cabinet. From the personal aspect this arrangement of joint command was a complete success, which was not always so in the past.

The story opens in 1933 and initiates the reader into the foreign and political repercussions in the inter-war years. Our meagre facilities in the Mediterranean, in both men and *matériel*, are stressed, and it is shown that all three Commanders-in-Chief were constantly bringing to the notice of H.M. Government the difficulty they experienced in meeting the many exacting demands in so widespread an area.

The reasons given by the editor for the manner in which the human factor is presented are fair, and the respective authors have done what they could in a broad and general account. But more might have been said about the excellent relations which existed between officers and men; how the burden of the first onslaught, as far as the Army was concerned, was borne by a few long-service Regulars, ably reinforced by efficient reservists during the 'phony' war period; and the years of intensive training and preparation in the western Desert before the outbreak of hostilities.

Opinions may differ about the regrettable incident at Oran, referred to on pages 137-8, and what course of action should have been pursued. Information respecting the times of receipt of certain messages is still lacking, but surely we could not expect the British Government and the Chiefs of Staff to trust any sort of guarantee backed by Hitler and Mussolini, those two masters of the double-cross. It seems clear, however, that Admiral Gensoul was, if anything, pro-Vichy, and that he never had any intention of agreeing to disarm under British supervision.

One or two more appendices might have been included. Besides Appendix 8, which is a model of its kind, it would have been of interest to have had a similar tabular statement of the British and Italian tanks—one of the most important arms in desert warfare. The brief description given on pages 104-5 is too sketchy to show the comparative values of the different types, besides which it is rather misleading: what was fastest over good ground was not so in loose sand. Similarly, a tabular statement showing the comparative strengths of the British and Italian fleets would have been a useful addition. Although

these and other points are largely covered in the text in Chapter V, it is easier for the reader to grasp these details if they are put in tabular form. An order of battle for each Service in June, 1940—and possibly in September, 1939, as well—would have been most useful; and the inclusion of the names of commanding officers of ships and units would have supplemented the information given in Appendix 9.

In a book which is written for the general public, as well as for Service readers, the narrative could have been enlivened by recounting here and there a few personal anecdotes of the several campaigns. The insertion of these lighter touches could not fail to be of interest. How did the 7th Armoured Division, for instance, acquire its well-known soubriquet, 'The Desert Rats'?

The index is not as complete as it might be, and it would have been clearer if words in italics had been confined to the names of ships, giving the nationality of those of non-British origin. British, as well as Dominion and Indian, infantry regiments might well have been listed all together under their respective main headings, as is done in the companion campaign volume, *The War in France and Flanders, 1939-40*.

The several chronological tables provide the reader with a good summary of the principal events, which enable him to maintain a correct contemporary perspective. The maps are excellent, but the selection of photographs leaves something to be desired. Close-up pictures of the three types of tank with which we started the war would have been preferable to that of one burnt-out, unspecified British tank (p. 280). On the whole, however, the editor and authors are to be congratulated on a good job of work.

Archangel 1918-19. By Field-Marshal Lord Ironside. (Constable,) 21s.

In his little book on the campaign in North Russia in 1918-19, Field-Marshal Lord Ironside has made no effort to write a history of the operations carried out under his command, but since no volume covering these events was prepared by Brigadier-General Edmonds in the series of official military histories of the 1914-18 War, this very clear narrative should close the gap and satisfy all those interested in this theatre of war during the period under review.

The author, then a regimental major and temporary infantry brigade commander, was transferred from the Western Front in September to take up the appointment of Chief of the General Staff to the Commander-in-Chief of the Allied Forces in North Russia on 1st October, 1918. He was then 38 years old, and on 19th November he succeeded General Poole as Commander-in-Chief.

Originally conceived as a 'side show' to prevent the wholesale transference of German troops to the west after the fall of Russia in 1917, the forces committed grew from a handful of marines in April, 1918, to an Allied total strength of 21,000 when the campaign terminated in September, 1919. When he assumed command at Archangel, the forces at his disposal consisted of contingents from the United Kingdom, Canada, France, and the U.S.A. with such Russians as could be recruited locally. Few, if any, had been trained to exist, let alone fight, under the conditions of five months of Arctic Winter which immediately confronted them, and only a commander with exceptional gifts of leadership could have quelled the several mutinies that resulted, restored the position after the withdrawal from Shenkursk, and rallied his troops in the Spring to throw back the Bolshevik offensive.

If the occasion produced the man, as has so often been the case in the history of the British Army, there can be little doubt that the arrival of the two well trained, well disciplined, Regular infantry brigades in May, 1919, made a successful evacuation possible.

The main lessons to be learned from this campaign relate to the exercise of his authority by an Allied Commander-in-Chief and to the care and welfare of personnel under exceptional climatic conditions. At times the events described border on *opera bouffe*, though the end for some of those participating was tragic in the extreme, since the withdrawal of each of the Allied nations from further war-like commitments and the ineptitude of the White Russian leaders left Russia herself under the heel of Red revolutionaries.

How Russia Makes War. By Raymond L. Garthoff. (Allen and Unwin.) 25s.

The bibliography quoted by Mr. Garthoff in his book *How Russia Makes War* will be of value to many a librarian. It comprises some 58 pages and includes a list of more than 550 published Soviet works, many of which are little known in England.

Before beginning any assessment of military doctrine from such sources, it is necessary to differentiate between propaganda material issued in support of Stalin and the existing regime and that dealing with views and beliefs conscientiously held and taught. Though the author has included much of this 'indoctrination' material, he has been at some pains to evaluate it correctly.

His work is divided into three parts. In the first he deals with the bases from which the present Russian military teaching evolves, and it is clear that, if some originated from the schools of the old Tsarist army, more has been absorbed from German sources. Clausewitz was a popular author with all the Bolshevik leaders, for his philosophy was so much in accord with their own, and German influence predominated during the years 1922 to 1933. In 1941, Stalin, a military genius in Russian eyes, laid down five "permanently operating factors" in place of the six principles of war so aptly summed up by General Forrest in his classic remark, "I allus gits thar fustest with the mostest," but as the war on the Eastern Front progressed it became apparent that these principles are immutable and the Russians were forced to accept them.

In Part II, the application of these principles to the Russian front is examined and in many ways this is the most interesting portion of the book. Several points emerge. In the higher direction of the war the Russian G.H.Q. (STAVKA) crushed the initiative of all subordinate commanders as ruthlessly as the regime itself had obliterated all free thought throughout the country. It was utterly callous both in regard to casualties and prisoners of war. The whole command from the Baltic to the Black Sea was divided into as many as 17 fronts, each controlled by the headquarters of an army group, each of which deployed, when active, from five to seven armies comprising about 1,000,000 men.

For offensives in 1945, concentrations comprising 670 guns and 150 tanks per kilometre were normal with each infantry battalion committed on a front of 600 metres. The whole would be supported by as many as 7,000 aircraft, usually directed against long range tactical targets. The Germans, whilst noting that this mass of men and material was often used unintelligently and at heavy cost, have admitted that it was nearly always effective.

Morale was maintained by careful indoctrination, surveillance, and terror among troops conspicuous to foreign observers for their high qualities of valour, discipline, endurance, and patriotism.

In Part III, the author deals with lesser operational factors and it is surprising to learn that since 1945 Russia has increased her number of horsed cavalry divisions and augmented the strength of each. The use of airborne forces in an independent role did not prove successful, but it is claimed that partisans with air reinforcement and support forced the Germans to use as many as 424,000 troops to protect their rear areas. If administratively the Russians have succeeded in reducing the 'tail,' it would appear that the methods used by them would not meet the needs of other armies and might fail in any other theatre of war. In the end one is left with the feeling that Russian military teaching is founded on too narrow a base with the naval and air forces as pure subsidiaries to the army.

N.A.T.O. and its Prospects. By Wing Commander J. D. Warne, D.S.O., D.F.C., R.A.F. (William Clowes and Sons.) 10s. 6d.

In this short book of 110 pages Wing Commander Warne, who has good qualifications for his subject, begins by explaining how the North Atlantic Treaty Organization came into being on account of the intransigent attitude of Russia after the end of the 1939-45 War.

Having defined the N.A.T.O. as primarily a military alliance between the Western Powers, the author then describes how the political structure and command organization

was gradually built up. Soviet military power is discussed, but the numerical statistics and the efficiency of the various arms are necessarily a matter of conjecture. Next to be examined are the financial and economic considerations which are involved in the implementation of the Treaty—finding the forces and resources.

The chapter on "The European Defence Community" sets out the pros and cons for including a re-armed Western Germany in the scheme of western defence. Some risks must be accepted; but if Western Germany remains unarmed, what becomes of the 'buffer state'? The questions of how best to use the various forces in the defence of the West, and under whose command they should be, are reviewed. But when trying to peer into the future of the Atlantic Community, the author, as well as the reader, can do no more than grope among the realms of conjecture.

The conception of the N.A.T.O. is nothing new, and as the author points out in a brief historical survey, similar organizations have sprung up at intervals throughout the centuries to meet the needs of the times. It is still too early to say how long the N.A.T.O., in its present form, will continue. It is quite clear, however, that the need for it will not expire until the U.S.S.R. agree to play ball.

The book is not an official publication and the views and comments expressed are the author's own. It is written in an easy style for readers who are already acquainted with the general idea of what the N.A.T.O. stands for, but whose knowledge of the finer points may be rudimentary. As an informed historical essay, however, it should be of no less value to a later generation who may wish to study its implications during the period of what has been called—not very appropriately—the 'cold war.'

If a second edition is called for, it would be improved by the addition of an index and area maps showing the political and command boundaries at the present time. A glossary, also, of the various boards and councils set up, and what their functions were, would not be amiss; and the first mention of cryptic words or initials (such as SACEUR, etc.), which are not interpreted in the text, might well be accompanied by a descriptive footnote.

As a short exposition of what is, in fact, a complicated subject, this book can be confidently recommended.

Report on the Atom. By Gordon Dean. (Eyre and Spottiswoode.) 16s.

Mr. Gordon Dean was, until recently, Chairman of the U.S. Atomic Energy Commission, and there could, of course, be no one better qualified to write a book of this sort. While it is, throughout, completely non-technical, it does present the story of nuclear fission and its derivatives in a form that almost all can understand.

Mr. Dean, as well as having held this important administrative post in the United States, shows himself to be a writer of very considerable ability. His book is a superb piece of work, one that grips the reader with its air of adventure and of exploration into the unknown scientific world of the atom. Allied to this feeling of adventure is the extremely lucid and well-balanced account of the production processes, and the current experimental work, which only a writer of Mr. Dean's calibre could produce. Here no one is bogged down in detail, or confused with figures, or staggered with complex scientific analyses. Obviously the overall account must be very much simplified, yet nevertheless it is given in enough detail for all to understand.

This is an enthralling book, written with wisdom, experience, and a crystal-clear lucidity. It is difficult, in a short review, to convey just how excellent it is, but it is certainly a book that ought to be very widely read.

Skis against the Atom. By Captain Knut Haukelid, D.S.O., M.C. (William Kimber.)

15s.

When Knut Haukelid with five companions was dropped by aircraft in the Hardanger Vidda, the largest, loneliest, and wildest mountain area in northern Europe, he had started upon one of the most important sabotage missions of the war. The task was to blow up

the German heavy water plant at Vemork. Heavy water played an important part in the experiments and preparations for the manufacture of the atom bomb, and Germany could not be allowed to lead in the production of this new and terrible weapon.

Haukelid had run many risks from the Gestapo in his native Norway before getting away to England, where he and many other Norwegians were trained for subversive warfare. The raid on Vemork, a place of great natural strength and well—but not well enough—guarded, was planned with great ingenuity and boldly and successfully carried out. The high-concentration installation was put out of action for nearly five months.

Then followed a Winter in the mountains for the men who had to do their fighting from abroad and live in their own country as outlaws. For fear of reprisals they took great care not to compromise their compatriots who were living under the German occupation, so they were condemned to a lonely existence amid ice and snow, often with little food. Airborne supplies from England could not reach them in bad weather, so it was fortunate that an accomplished stalker could bring in reindeer meat. It proved invaluable.

Later, the crowning blow was delivered. News came that the Germans were about to move the heavy water apparatus from Vemork to Germany, and plans were made to destroy it in transit. The selected point of attack was the ferry where the equipment had to be shipped across the Tinnsjö; the ship was raided and concealed charges were laid and timed to explode when the ferry was in deep water. This exploit was crowned with complete success and the equipment was lost beyond recovery. The cost was 14 Norwegian lives.

All these adventures and a great deal more—for the tale is continued until the collapse of the German occupation—are vividly related by Knut Haukelid with a simplicity and absence of self-consciousness one cannot but admire. Major-General Sir Colin Gubbins contributes an informative introduction which describes how the Special Operations Executive (S.O.E.) waged subversive warfare in all the occupied countries—with, of course, special reference to Norway. Some of the striking illustrations are reproduced from the documentary film of the Vemork raid. The translation is by F. H. Lyon.

Colonel Henri's Story. Edited by Ian Colvin. (William Kimber.) 15s.

Colonel Henri was not his name; nor was it Monsieur Jean, as he sometimes called himself. He was Hugo Bleicher, a Hamburg shipping clerk who became a sergeant in the German counter-intelligence service. In Ian Colvin's judgment he may well "have done more harm to the Allied cause on the intelligence front than any other one man," between the years 1942 and 1944. These memoirs were related by Bleicher to Captain Erich Borchers, one of his superior officers, and the English translation of the German book is by Mr. Colvin.

Bleicher operated throughout in France and despite his humble rank was allowed the initiative to which his talents undoubtedly entitled him. He found that he possessed the gift of assimilating the mentality of the French and he had an excellent knowledge of the language. His work was to counter the subversive activities of the Allies, the French and British organizations which assisted and strengthened the Resistance movement.

The story is a factual and fairly convincing one. Where the author's recollection or knowledge are palpably at fault Mr. Colvin very judiciously interpolates comment and correction.

German military intelligence and the German security service mistrusted each other, and the methods of the latter were kept secret. We are told that military intelligence stuck to their code and disapproved of acts of violence; obviously the fate of the prisoners they handed over to the Gestapo was no concern of theirs. It was Bleicher who secured the arrest of Odette and Captain Peter Churchill, "the two most important British agents in France known to us at the time." He is at pains to record that he was quite unaware of the subsequent torturing of Odette, but this statement is refuted here by Odette herself.

It seems true that Bleicher was no lover of the Nazi régime, but was no less zealous on that account. He seems to have posed as a 'good German,' an enemy of Hitler, and thereby won the confidence of many Frenchmen. He expresses great sympathy for the "honest, whole-hearted, and chivalrous" Major Henri Frager, leader of Action Group Jean-Marie. He arrested him, and when he heard that his victim had been done to death in Buchenwald he relates that he "wept like a child." Perhaps he did.

The chief impression left by this book is of the fearful hazards run by our British and French agents who were often obliged to trust the weak and the treacherous, and of the complexity of motives which actuated so many of the characters who moved in the underworld of the Resistance.

NAVAL

The Nation and the Navy. By Christopher Lloyd. (Cresset Press.) 18s.

Mr. Lloyd, following somewhat in the footsteps of Professor Lewis, has attempted the impossible, which is to compress into a book of 267 pages a historical account of the Royal Navy, from its earliest days until the naval conference of 1922. Subject to the limitation of the word 'impossible', the author has made a most praiseworthy attempt to complete the task and has compressed into one comparatively small volume a lucid and interesting story, in which the broad sweep of naval life, social as well as material, is told with reasonable accuracy.

Much, of course, is compressed, much is omitted, and no doubt several readers will lament the excision of particular episodes in which their interest chiefly lies. Yet within the broad outlines of naval development Mr. Lloyd has done his work remarkably well, and his book must be of great value as a challenging introduction to a more detailed study of the naval story.

On matters of detail there is much here to delight the historian, tantalizing little items that make clear the extensive research which has gone into the preparation of this book. Indeed, such a book could never have been written without a great deal of preliminary painstaking research, and Mr. Lloyd is to be congratulated on the great care to which he has gone in his search for the less obvious pieces of knowledge.

It must be stressed that this book is not one for the expert naval historian, who may well feel that it is too much of a condensation to be of value in that particular sphere. But to the general reader, who wants a book that will tell in broad outline the salient story of the rise and development of the Royal Navy, this is indeed a book worth reading. Well-written, clear, precise, it will serve a long-felt want.

Les Flottes de Combat, 1954. Edited by Henri and Jérôme Le Masson. (Editions Maritimes et Coloniales, Paris.) 3,000 fr.

Les Flottes de Combat, which first appeared in 1897, is the French counterpart of *Jane's Fighting Ships*. The present volume gives details of 5,250 war vessels and a number of naval aircraft, of which more than 700 of the warships are new.

The attention of British readers will naturally focus on the navies of this Country and of the United States and the U.S.S.R. The type of new construction of the North Atlantic Treaty Powers points to the danger presented by air, submarine and surface raiders, and by mines. Their efforts are therefore not extended to the construction of many large new warships, of which Great Britain and America already possess an important tonnage, but above all to the construction of a large number of anti-aircraft and anti-submarine escort vessels and minesweepers. The Royal Navy is transforming into frigates an increasing number of destroyers built between 1940 and 1945. It may be noted that the British programme is making slow progress. The first of the new frigates was launched in mid-1953, nearly three years after its construction was authorized, and long delays have been experienced during the construction of such ships as the aircraft carriers *Ark Royal* and *Hermes*. Since the completion of the aircraft carrier *Eagle*, the only new naval vessels brought into service are super destroyers of the *Daring* class.

On the other hand the abundant financial resources of the United States allow them to carry out correspondingly important work. The trials of the *Forrestal*, the first strategic aircraft carrier of 59,000 tons, are expected in 1955. Each half-year some of the aircraft carriers of the *Essex* class are brought back into service after reconstruction and many other vessels, including two atomically propelled submarines, are also under construction. In both countries naval aviation has been strikingly advanced.

Attention continues to be focused on the Soviet naval strength, which was revealed spectacularly last year by the appearance of the heavy cruiser *Sverdlov* at the Coronation Review. The *Sverdlov* is the prototype of eight or ten vessels in service or under construction. In two years time Russia will have about 20 large cruisers, numerous flotillas of large destroyers, and, it is estimated, about 400 submarines. She already possessed 3,500 naval aircraft, including many jets, in January, 1953.

Lack of space precludes the detailed examination of other navies. Let it suffice to say that *Les Flottes de Combat*, 1954, contains a wealth of information and many excellent photographs and diagrams, of which 220 are new. It must be regarded as a most useful and interesting book of reference.

Sunk. By Mochitsura Hashimoto. (Cassell.) 15s.

This book, written by a commanding officer of submarines in the Imperial Japanese Navy, gives an account of the wartime activities of Japanese submarines. On the whole, in a check with known losses, it appears to be a remarkably accurate description.

The first thing that will strike any informed reader is the extraordinary ineptitude with which the Japanese navy operated its submarines. There would seem to have been no proper strategical understanding of the use of the submarine as a weapon of war, and no attempt to learn from the methods of employment of United States submarines in the same waters. Running throughout the book is this story of misuse, with its resultant crippling losses.

Almost as extraordinary is the lack of modern weapons, especially of ship-borne radar. Submarines, apparently, came low on the list for these essential requirements, and right up to the end the shortage made itself felt in easily avoidable losses. It seems an extraordinary state of affairs in a navy that, by many standards, could be called essentially modern. Yet such was the case, and Mr. Hashimoto draws the right conclusions as to the effect such a lack of equipment had on the submarine warfare of Japan as a whole.

This is, indeed, a book of very considerable interest and one which focuses attention on the correct strategical use of the submarine. If, as has so often been said, a nation learns more from its failures than its successes, then here is a vital lesson for any Japanese navy of the future.

ARMY

The Seventh and Three Enemies. By Brigadier G. M. O. Davy, C.B., C.B.E., D.S.O. (Heffer.) 35s.

This book is the story of the 7th Queen's Own Hussars in the 1939-45 War. The Regiment was fortunate in getting a full and varied share of active service in North Africa, in Burma, and finally in Italy against our three principal enemies, Germany, Japan, and Italy, whence comes the book's neat title.

Nearly all regimental histories are of interest to those who have served in that particular regiment. Comparatively few can offer any really strong appeal to a much wider public. In this book there are two factors which earn it a place among the books that ought to be read by any student of modern war, no matter what his arm or service may be.

The first factor is the very readable manner in which the author has included, as a background to the Regiment's adventures, just sufficient political and military history of the three theatres without overdoing it. To hit the correct proportion between the general

and the local picture is not at all easy. In this case the problem has been exceptionally well solved.

Secondly, this book provides a lively and interesting study of armoured operations over the three very different types of country—desert, jungle, and mountains. There are already in print many books describing the work of tanks in one type of terrain or the other, but not many books show so clearly how these widely differing problems of ground were met and surmounted by the same unit within the space of a few months.

For all this, the book is far from being a heavy tactical treatise. The style throughout is light and easily readable. Gunner readers will be particularly pleased to find that credit is generously given, not only to 'artillery support' as a vague term, but to specified batteries and to individual gunners by name. A gratifying innovation indeed in regimental histories!

Maps are adequate, but would be more useful if mounted on a folding inset, so that they could be studied while reading the narrative without interruption.

History of The Queen's Royal Regiment, Volume III, 1924-1948. By Major R. C. G. Foster, M.C. (Gale and Polden.) 42s.

This volume is concerned mainly with the story of the Regiment in the 1939-45 War. At one period eight Queen's battalions were in action, six of which constituted two Territorial Brigades—131st and 169th. The narrative is arranged in chronological order and combines adequate detail with sufficient background to illustrate the achievements of the Regiment.

Both Regular battalions were abroad at the outbreak of war. The 2nd served with distinction in Libya, in Syria, at Tobruk, and afterwards as Chindits in Burma. The 1st Battalion saw service on the North-West Frontier and then with 7th Indian Division in Burma. Throughout this long and arduous campaign the Battalion set an example in efficiency, courage, and soldierly bearing. As the Divisional historian remarks: "the Queen's were rather proud of the Queen's."

The 131st and 169th Brigades served in France during 1940. The 131st reached Egypt in time to be present at Alam Halfa. After El Alamein, the 131st joined the 7th Armoured Division and were the leading infantry all the way to Tunis. They gained a fine reputation, especially for their action at Medenine. The 169th Brigade arrived in Iraq in November, 1942; from there they made an approach march of 3,313 miles in 31 days and, on arrival at Enfidaville, went into action at once. Both brigades served in Italy, the 169th (56th Division) were in the assault landing at Salerno; the 131st arrived there later. During the subsequent advance over the Naples plain the six battalions moved side by side. The 169th remained in Italy until the end of the war, but the 131st were ashore in Normandy by 10th June, and finished the war in Germany, still with the 'Desert Rats.'

This handsome volume of some 600 pages, profusely illustrated, is provided with 55 sketch-maps and a comprehensive index. The author has succeeded in his task of producing a good regimental history and has not failed to show how traditions were upheld. "The reader of these pages," writes General Sir G. Giffard, Colonel of the Regiment, in his foreword, "cannot fail to be impressed by the influence which regimental tradition has upon the conduct of units and their success in war. Lip service is often paid to this, but there is no doubt that the great strength of British Infantry lies in the tradition handed down through the centuries."

The D.L.I. at War. By David Rissik. (Published by the Regiment.) 12s. 6d.

This volume contains a history of the Regiment from 1939 to 1945. It possesses an added interest, uncommon among regimental histories, of being the history, not only of a single battalion here and another there but also of a complete infantry brigade. For the Durham Light Infantry enjoy the unusual distinction of having provided all the battalions of the 151st Infantry Brigade, which fought throughout both the World Wars as an entirely D.L.I. formation.

This peculiarity has eased the author's task, because instead of dealing separately with a multiplicity of battalions conducting simultaneous operations in different places, he has been able to follow the fortunes of three of the battalions, the 6th, 8th, and 9th, as one combined narrative, an arrangement which has produced an easily readable and consecutive story. The remaining battalions, including those who served as anti-aircraft or searchlight units and as battalions of the Home Forces, have all been allotted their fair share of space in this book. An appendix deals with the histories of the three allied regiments, two New Zealand and one Canadian, affiliated to the Durham Light Infantry.

The combined story covers North-West Europe, Iceland, the Western Desert, Malta, Tunisia, Sicily, Cyprus, Iraq, Italy, and Greece, for many of the units, and the Burma campaign for the 2nd Battalion. In addition to these better known theatres, there is a spirited account of one of the lesser known self-contained little operations, in which the 1st Battalion played the principal part. This was the air-transported invasion of Cos, a small Italian-held island of the Dodecanese, followed by its evacuation by the few survivors after a fierce battle against a German airborne counter-attack. The story is one worth study by every student of combined operations, specially by airmen, as it demonstrates clearly the right and wrong ways of giving air support to a land battle, as well as illustrating the futility of getting infantry to capture air-strips unless there are fighters available to follow up and use the strips.

The book is well supplied with maps, conveniently mounted as a rule for simultaneous study with the text.

The 9th Gurkha Rifles. Volume II. 1937-47. By Lieut.-Colonel G. R. Stevens, O.B.E. (Published by the Regiment.)

The second volume of the history of the 9th Gurkhas brings to an end the story of 130 years of service under the British flag. During this period the Regiment built up and kept a reputation for loyalty and hard fighting, a reputation which, as this book relates, was enhanced by the 1939-45 War, which enabled the Regiment to add two Victoria Crosses to its laurels.

When India gained her independence, the Gurkha regiments were divided between India and Britain: the 9th went to India. Our loss was her gain!

In 1939, there were two battalions in this Regiment; when the war ended there were five, four of which had seen hard fighting. The story of each battalion is related in this history.

The 1st Battalion joined the 4th Indian Division, Eighth Army, just prior to the Battle of Mareth, and it finished the war in Greece, having fought through the Italian campaign. The 2nd Battalion was unfortunate enough to be caught in Malaya, and officers and men spent three and a half years as prisoners of war in that country. The 3rd and 4th Battalions fought right through the Burma campaign, the 3rd arriving in Singapore shortly after the armistice in time to relieve their comrades of the 2nd Battalion from captivity. The 3rd went on to fight in Java, where the Indonesian troubles had to be settled. The 5th Battalion, the last to be raised, spent its time on the North-West Frontier of India.

Volume II is very well written. The author has avoided the war diary style of writing with the result that the narrative makes most interesting reading, but the inclusion of more maps of a larger scale than one inch to 30 miles would have made it easier for the reader to follow the accounts of the actions in which the battalions took part.

AIR

Royal Air Force, 1939-1945. Volume I. The Fight at Odds. By Denis Richards. (H.M.S.O.) 13s. 6d.

In this, the first of three volumes on the history of the Royal Air Force during the 1939-45 War, the author has to deal for the most part with that unhappy period when the R.A.F. were vastly outnumbered by the *Luftwaffe*, and when the offensive action of our

bombers was severely restricted, not only for political reasons but also by lack of performance

Included in it also is the story—too little known—of that grim time when small numbers of gallant aircrew, mostly in obsolete or obsolescent aircraft, suffered cruel losses in attempting to stem the advance of the *Wehrmacht* in north-west Europe, and later to cover as far as they were able the evacuation from the beaches of Dunkirk by attacking the enemy in the air at its approaches.

But there were some bright patches to lighten this gloomy picture: the famous Battle of Britain is described in detail, frequently in the vivid words of the pilots flying their Hurricanes and Spitfires. Here, for example, is a typical combat report by a pilot officer who had sighted a ME-109 over Dover:—

"I climbed up to him. He must have thought I was an ME-109, but when he suddenly dived away I followed him and gave a two-second deflection burst. The enemy aircraft lurched slightly and went into a vertical dive. . . . I saw the E.A. dive straight into the sea and disappear in a big splash of water. I then climbed to 23,000 feet up sun and saw a formation of 12 ME-109's 2,000 feet beneath me. . . . As I was diving for them a large column of cannon and machine gun fire came from behind. There were about 12 ME's diving at me from the sun. There was a popping noise and my control column became useless and I found myself in a vertical dive. . . . I got my head out of the cockpit and the slipstream tore the rest of me clean out of the machine. My trouser leg and both shoes were torn off."

He came down in the sea off Dover and an hour or two later was rescued by one of our motor-boats.

At the same time as these fierce fights over Britain and the Channel were taking place, the other home Commands were giving Fighter Command every support in order to help in winning this brilliant victory.

We also read a sober account of the blitz and the beginnings of our successful counter-measures against the night bombers.

The scene then shifts to the Middle East where the A.O.C.-in-C. was overwhelmed by calls for aircraft, although sadly lacking in resources—a situation soon made infinitely worse when it became necessary to send air assistance to our forces in Greece and in Crete.

Some almost unrecorded but highly successful operations in Syria and Iraq are also brought to light, including the extraordinary action at Habbaniya where No. 4 Flying Training School put to flight Rashid Ali's troops, numbering 9,000 with 28 pieces of artillery which, at the end of April, 1941, had surrounded this important and vulnerable British centre.

But by the end of 1941, the strength of the Royal Air Force was everywhere growing rapidly, and at last the time had come to go over to the offensive.

This book, written in an attractive and easy style with humour and sympathy, is in the best traditions of the modern military history, and the publication of the remaining two volumes can be anticipated with interest and pleasure.

ADDITIONS TO THE LIBRARY

(*Books for Reference in the Library only)

GENERAL

- *THE AGE OF INIGO JONES. By James Lees-Milne. Super Royal 8vo. 242 pages. (Batsford, 1953.) 42s.
- ASIA AND WESTERN DOMINANCE. A Survey of the Vasco Da Gama Epoch of Asian History, 1498-1945. By K. M. Panikkar. Demy 8vo. 530 pages. (Simson Shand, Ltd., 1954.) 30s.
- ATTLEE. As it Happened. By The Rt. Hon. C. R. Attlee. Demy 8vo. 217 pages. (Heinemann, 1954.) 16s.
- MR. BALFOUR'S POODLE. By Roy Jenkins. Demy 8vo. 224 pages. (Heinemann, 1954.) 21s.
- CLOSE CONTACT. With the Soviets in Eastern Germany. By Brigadier C. H. Dewhurst, O.B.E. Demy 8vo. 173 pages. (Allen & Unwin, 1954.) 12s. 6d.
- COLONEL HENRI'S STORY. The Memoirs of the German Secret Agent who arrested Odette and Peter Churchill. Edited by Ian Colvin. Demy 8vo. 200 pages. (W. Kimber, 1954.) 15s. Presented by the Publishers. (See Review in this JOURNAL.)
- COMMUNIST GUERRILLA WARFARE. By Brigadier C. Aubrey Dixon, O.B.E., and Otto Heilbrunn. Demy 8vo. 230 pages. (Allen and Unwin, 1954.) 18s.
- A CONTINENT DECIDES. By Lord Birdwood. Demy 8vo. 315 pages. (Robert Hale, 1954.) 21s.
- CRETE. Official History of New Zealand in the Second World War, 1939-45. By D. M. Davin. Medium 8vo. 547 pages. (Oxford University Press, 1953.) 30s.
- DUEL OF WITS. His Record of Three Missions into Enemy Territory—covering the Adventures and Dangers shared with Odette until their Capture. By Peter Churchill. Demy 8vo. 319 pages. (Hodder and Stoughton, 1953.) 12s. 6d.
- FAR EASTERN AGENT. By Donald Moore. Demy 8vo. 224 pages. (Hodder and Stoughton, 1954.) 15s.
- THE FRENCH REVOLUTION, 1788-1792. By Gaetano Salvemini. Demy 8vo. 344 pages. (Jonathan Cape, 1954.) 18s.
- GERMANY REPORTS. Official Report. Demy 8vo. 287 pages. (The Press and Information Office of the German Federal Government, 1954.) Presented by G. A. Minto, Esq.
- *HISTORIE OF TRAVEL INTO VIRGINIA BRITANIA. SERIES II. VOL. CIII. By William Strachey. Demy 8vo. 222 pages. (The Hakluyt Society, 1953.)
- HOW RUSSIA MAKES WAR. By Raymond L. Garthoff. Medium 8vo. 587 pages. (Allen and Unwin, 1954.) 25s. Presented by the Publishers. (See Review in this JOURNAL.)
- *MANDEVILLE'S TRAVELS. SERIES II. VOL. CI. Translated by Malcolm Letts, F.S.A. Demy 8vo. 554 pages. (The Hakluyt Society, 1953.)
- THE MEDITERRANEAN AND THE MIDDLE EAST. VOL. I. The Early Successes against Italy. By Major-General I. S. O. Playfair and others. Royal 8vo. 506 pages. (H.M.S.O.) 35s. Presented by the Publishers. (See Review in this JOURNAL.)
- THE PAPERS OF THOMAS JEFFERSON. VOL. VIII. February, 1785 to October, 1785. Edited by Julian P. Boyd. Medium 8vo. 687 pages. (Princeton University Press, 1953.) \$10.00. Presented by the Publishers. This book is the next in a long series of volumes on this subject.
- THE MEMOIRS OF MARSHAL MANNERHEIM. By Marshal Mannerheim. Demy 8vo. 540 pages. (Cassell, 1953.) 42s.

- N.A.T.O. AND ITS PROSPECTS. By Wing Commander J. D. Warne. Demy 8vo. 110 pages. (Clowes, 1954.) 10s. 6d. Presented by the Publishers. (See Review in this JOURNAL.)
- RACING YACHT CLASSES. British and International. Edited by H. E. Whitaker. Demy 8vo. 256 pages. (Ward Lock, 1954.) 25s.
- REPORT ON THE ATOM. By Gordon Dean. Demy 8vo. 288 pages. (Eyre and Spottiswoode, 1954.) 16s. Presented by the Publishers. (See Review in this JOURNAL.)
- THE SECOND WORLD WAR. VOL. VI. Triumph and Tragedy. By Winston S. Churchill. Demy 8vo. 716 pages. (Cassell, 1954.) 30s.
- SKIS AGAINST THE ATOM. By Captain Knut Haukelid. Demy 8vo. 201 pages. (W. Kimber, 1954.) 15s. Presented by the Publishers. (See Review in this JOURNAL.)
- SOUTH AFRICA IN A CHANGING WORLD. By Edgar H. Brookes. Crown 8vo. 151 pages. (Oxford University Press, 1953.) 12s. 6d.
- *SOUTH CHINA IN THE SIXTEENTH CENTURY. Being the Narratives of Fr. Gaspar da Cruz, O.P., Galeote Pereira, and Fr. Martin de Rada, O.E.S.A. 1550-1575. Edited by C. R. Boxer. Demy 8vo. 388 pages. (The Hakluyt Society, 1953.)
- THE SUDAN. By Sir Harold MacMichael. Demy 8vo. 255 pages. (E. Benn, 1954.) 21s.
- THE WAR IN FRANCE AND FLANDERS, 1939-1940. By Major L. F. Ellis. Royal 8vo. 425 pages. (H.M.S.O., 1954.) 37s. 6d. Presented by the Publishers. (See Review in this JOURNAL.)
- THE WAR IN KOREA, 1950-1953. A Study of the War in Korea up to the Signing of the Cease Fire. By Major R. C. W. Thomas. Foolscap 8vo. 120 pages. (Gale and Polden, 1954.) 10s. 6d.
- THE WORLD IS SIX FEET SQUARE. By Alan Caillou. Demy 8vo. 214 pages. (Peter Davies, 1954.) 12s. 6d.

NAVAL

- THE ADVENTURES OF JOHN WETHERELL. Edited by C. S. Forester. Demy 8vo. 275 pages. (Michael Joseph, 1954.) 18s.
- THE BRITISH SUBMARINE. By Commander F. W. Lipscomb. Demy 8vo. 269 pages. (A. and C. Black, 1954.) 25s. Presented by the Publishers.
- THE NATION AND THE NAVY. By Christopher Lloyd. Demy 8vo. 288 pages. (Cresset Press, 1954.) 18s. Presented by the Publishers. (See Review in this JOURNAL.)
- PROUD WATERS. By Ewart Brookes. Demy 8vo. 359 pages. (Jarrolds, 1954.) 10s. 6d.
- SUNK. The Story of the Submarine Fleet of Japan. By Hashimoto Mochitsura. Demy 8vo. 218 pages. (Cassell, 1954.) 15s. Presented by the Publishers. (See Review in this JOURNAL.)
- WAR IN THE EASTERN SEAS, 1793-1815. By C. Northcote Parkinson. Demy 8vo. 476 pages. (Allen and Unwin, 1954.) 35s.

ARMY

- *HISTORY OF THE QUEEN'S ROYAL REGIMENT. Volume VIII, 1924-1948. Compiled by Major R. C. G. Foster. Royal 8vo. 593 pages. (Gale and Polden, 1953.) 42s. Presented by the Regiment. (See Review in this JOURNAL.)
- *THE D.L.I. AT WAR. By David Rissik. Demy 8vo. 352 pages. (Published by the Regiment, 1954.) 12s. 6d. Presented by the Regiment. (See Review in this JOURNAL.)
- *THE 9th GURKHA RIFLES. VOL. II, 1937-1947. By Lieut.-Colonel G. R. Stevens. Super Royal 8vo. 355 pages. (Published by the Regiment.) Presented by the Regiment. (See Review in this JOURNAL.)
- CARNOT, 1753-1823. By S. J. Watson. Demy 8vo. 223 pages. (The Bodley Head, 1954.) 18s.

- CROMWELL'S GENERALS.** By Maurice Ashley. Demy 8vo. 256 pages. (Jonathan Cape, 1954.) 21s.
- ODTAA.** Being Extracts from the Diary of an Officer who served with the 4/10th Gurkha Rifles in Manipur and Burma. By A. C. Bickersteth. Demy 8vo. 258 pages. (The Aberdeen University Press, 1953.) Presented by Professor Geoffrey L. Bickersteth.
- OSMAN DIGNA.** By H. C. Jackson. Demy 8vo. 232 pages. (Methuen, 1926.) Presented by Major J. F. Cooke.
- PISTOLS, RIFLES AND MACHINE GUNS.** By Major W. G. B. Allen. Demy 8vo. 178 pages. (English University Press, 1954.) 15s. Presented by the Publishers.
- SWIFTLY THEY STRUCK.** The Story of No. 4 Commando. By Murdoch C. McDougal. Demy 8vo. 208 pages. (Odhams, 1954.) 12s. 6d.
- *THE WALKER EXPEDITION TO QUEBEC, 1711.** Edited by Gerald S. Graham. Medium 8vo. 441 pages. (Navy Records Society, 1953.)
- WELLINGTON AND HIS ARMY.** By Godfrey Davies. Demy 8vo. 154 pages. (Blackwell, 1954.) 18s.
- AIR**
- REACH FOR THE SKY.** Douglas Bader, His Life Story. By Paul Brickhill. Demy 8vo. 384 pages. (Collins, 1954.) 16s.
- ROYAL AIR FORCE, 1939-1945. VOL. II. The Fight Avails.** By Dennis Richards and Hilary St. G. Saunders. Demy 8vo. 415 pages. (H.M.S.O., 1954.) 13s. 6d. Presented by the Publishers.
- FIRST THROUGH THE CLOUDS.** By F. Warren Merriam. Demy 8vo. 176 pages. (Batsford, 1954.) 21s.
- PIONEER OF THE AIR.** The Life and Times of Colonel S. F. Cody. By G. A. Broomfield. Demy 8vo. 164 pages. (Gale and Polden, 1953.) 10s. 6d.
- RESCUE BELOW ZERO.** By Ian Mackersey. Demy 8vo. 155 pages. (Robert Hale, 1954.) 15s.

ONE HUNDRED-AND-TWENTY-THIRD ANNIVERSARY MEETING

ON TUESDAY, 2ND MARCH, 1954, at 3 p.m.

AIR CHIEF MARSHAL SIR JAMES M. ROBB, G.C.B., K.B.E., D.S.O., D.F.C., A.F.C.,
presiding

THE SECRETARY (LIEUT.-COLONEL P. S. M. WILKINSON) read the notice
convening the meeting, which appeared in *The Times* of Tuesday, 16th February, 1954.

ANNUAL REPORT FOR 1953

The Council have the honour to present their Annual Report for the year
1953.

THE CORONATION

On the occasion of the Coronation of Her Majesty Queen Elizabeth II, a Loyal Address was sent by the Chairman in the name of The Council and Members of the Institution. A reply was received, in which The Queen was graciously pleased to convey "Her Majesty's warm thanks for the expressions of loyalty and devotion which it contains."

To enable as many members and their friends as possible to see the Royal Procession pass along Whitehall on Coronation Day, stands were erected by the staff in the Banqueting Hall and Institution, as well as in the small enclosures outside. Television was provided throughout the premises, and Prayers were offered for Her Majesty by Colonel the Rev. Richard Atkinson, O.B.E., M.C., T.D., and Lieut.-Colonel the Rev. E. J. C. King-Salter, D.S.O., O.B.E.

COUNCIL

VICE-PRESIDENTS

The Council with much regret have to record the death on 20th October, 1953, of Air Chief Marshal Sir Robert Brooke-Popham, G.C.V.O., K.C.B., C.M.G., D.S.O., A.F.C.

Marshal of the Royal Air Force The Lord Newall, G.C.B., O.M., G.C.M.G., C.B.E., A.M., was elected a Vice-President in this vacancy.

ELECTED MEMBERS

The following elections were made to vacancies on the Council :—

Captain J. A. Creed, V.R.D., R.N.V.R., vice Captain C. B. Sanders, C.B.E., V.R.D., R.N.V.R.

Brigadier A. D. McKechnie, D.S.O., O.B.E., T.D., A.D.C., vice Lieut.-Colonel R. D. Judd, D.S.O., M.C.

The following members, having completed three years' service, retire :—

Royal Navy—

Admiral Sir Henry Moore, G.C.B., C.V.O., D.S.O., who offers himself for re-election.

Regular Army—

Major-General L. O. Lyne, C.B., D.S.O.

REPRESENTATIVE MEMBERS

Captain W. A. Adair, D.S.O., O.B.E., R.N., succeeded Captain W. K. Edden, O.B.E., R.N., as Admiralty Representative on the Council on taking over the appointment of Director of Tactical and Staff Duties.

Air Vice-Marshal The Earl of Bandon, C.B., C.V.O., D.S.O., succeeded Air Vice-Marshal T. N. McEvoy, C.B., C.B.E., as Air Ministry Representative on the Council on taking over the appointment of Assistant Chief of Air Staff (Training).

EX OFFICIO MEMBERS

The following accepted the Council's invitation to become ex officio Members of the Council on taking up their appointments :—

Air Chief Marshal Sir William F. Dickson, G.C.B., K.B.E., D.S.O., A.F.C., Chief of the Air Staff.

Rear-Admiral W. K. Edden, O.B.E., Commandant of the Joint Services Staff College.

Captain J. D. Luce, D.S.O., O.B.E., R.N., Director, Royal Naval Staff College.

Air Vice-Marshal D. Macfadyen, C.B., C.B.E., Commandant of the R.A.F. Staff College.

HONORARY MEMBER OF THE COUNCIL

Major-General G. R. Turner, C.B., M.C., D.C.M., accepted the Council's invitation to serve as Honorary Member of the Council for Canada.

MEMBERSHIP

The total number of members on the roll at the end of 1953 was 6,220 compared with 6,251 in 1952. During the year 247 members joined the Institution compared with 250 in 1952. The following shows the figures for the past seven years :—

Year	Joined		Total	Re- signed	Deceased		Struck off	Total
	Annual	Life			Annual	Life		
1953 ...	190	57	247	184	34	42	18	278
1952 ...	197	53	250	206	56	21	26	309
1951 ...	224	56	280	125	49	35	24	233
1950 ...	289	56	345	126	41	50	21	238
1949 ...	397	103	500	185	58	64	57	364
1948 ...	449	128	577	270	44	29	35	378
1947 ...	407	276	683	390	63	31	36	520

The details of members joining during the year 1953 are as follows :—

Regular Army	...	...	...	...	...	...	121
Royal Air Force	...	...	...	...	...	...	60
Royal Navy	...	...	...	...	...	...	24
Territorial Army	...	...	...	...	...	...	8
Royal Marines	...	...	...	...	...	...	7
Indian Forces	...	...	...	...	...	...	7
Dominion Forces...	...	...	...	...	...	...	6
Royal Naval Volunteer Reserve	...	...	...	...	...	...	5
Royal Air Force Volunteer Reserve	...	...	...	...	...	...	3
Pakistan Forces	...	...	...	...	...	...	3
Royal Auxiliary Air Force	...	...	...	...	...	...	1
Royal Observer Corps	...	...	...	...	...	...	1
Home Guard	...	...	...	...	...	...	1
							<u>247</u>

COVENANTED SUBSCRIPTIONS

The Revenue Account shows the financial benefit to the Institution arising from the co-operation of members who covenant to pay their subscriptions.

At the end of 1953 there were 1,434 annual covenanted subscriptions compared with 1,429 in 1952; and 274 covenanted life subscriptions compared with 684 in 1952.

During 1953, 133 annual covenants, out of a total number of 165, were renewed on expiry and 437 life covenants completed the seven-year period.

FINANCE

The excess of income over expenditure is £180 10s. 5d. compared with an excess in 1952 of £103 10s. 5d.

Comparisons of the principal items of Receipts and Expenditure are shown below:—

RECEIPTS

	1953			1952		
	£	s.	d.	£	s.	d.
Annual Subscriptions	5,824	14	6	5,898	11	0
Life Subscriptions (amount brought to credit)	2,098	8	0	1,998	11	0
Museum	4,012	2	6	3,830	10	6
Journal Sales	2,173	17	11	2,900	15	6
Journal Advertisements	565	17	1	558	10	11
Sales of Catalogues and Pamphlets	139	15	5	137	18	11

Life Subscriptions (brought to credit) represent £1 10s. 0d. from each life member whose payment has not yet been so expended. The balance is held in the Life Subscription Fund. £1,262 10s. 8d. has been transferred to this Fund on account of tax rebate on covenanted life subscriptions.

Museum. In spite of the Museum having been closed for ten days during preparations for the Coronation, the year shows a new record in paid admissions. It is the first time that the £4,000 mark has been exceeded.

Dividends. The lower amount received this year in the General Account (see Revenue Account) is due to changes in investments and a consequent alteration in the dates of the payment of dividends.

EXPENDITURE

	1953			1952		
	£	s.	d.	£	s.	d.
Salaries & Allowances, Wages and						
National Insurance	9,856	7	0	9,499	13	2
Journal Printing	4,498	1	11	4,440	8	2
Library—Purchase of Books	341	17	4	326	10	7
Binding	93	17	6	96	3	0
Fuel	242	17	0	242	15	6
Lighting and Electric Fires	495	19	11	483	11	7
General Repairs and Maintenance	431	10	1	169	2	6
Other Printing and Stationery	241	17	0	357	5	2
Museum Expenses	21	11	11	158	6	4

Salaries and Wages. The rise is due to additional remuneration to the senior members of the Staff during the last quarter and to normal service increases to other members.

Library. Since 1st April, 1953, a discount of 10 per cent. has been allowed on all orders for new books.

General Repairs and Maintenance. The figure for the year includes charges for washing down and cleaning all the Institution premises, and for the installation of a new lighting system for the Rubens Ceiling.

GENERAL

During the last two years the number of new members has not compensated for the normal wastage. It is not possible to give an indisputable reason for this, but there is no doubt that a contributory cause is the large proportion of Officers serving overseas. An analysis of new members shows that the rank of Major, and its equivalent, predominates, which suggests that the value of the Institution is not realized until later on in the formative years of an officer's career.

JOURNAL

Among Service Establishments, the Royal Air Force continues to head the list of purchasers, closely followed by the Royal Australian Air Force.

The valuable lectures given at the Institution during the year and the large number of articles received from officers and others have enabled the high standard to be maintained, and the thanks of the Institution are due to the lecturers and authors concerned.

A review of international affairs has been a regular feature in every number under the title "The International Situation." The rapid changes in events, however, make it difficult to ensure that the contents of this article are always up-to-date by the time the JOURNAL is published.

The number of books received with requests for review has indicated once more the value placed in the "Reviews of Books" section of the JOURNAL by both authors and publishers.

The willing assistance given by Service Departments, Commandants of Staff Colleges, and Admiralty, War Office, and Air Ministry Representatives on the Council in preparing the lecture programme, in facilitating approval for articles written by serving officers, and in advising the Editor in many matters, is gratefully acknowledged.

LIBRARY

During the past year the Library has been used very extensively for reference, research, and lending purposes. 7,090 volumes were issued—the highest number ever recorded—against 6,041 in 1952. 369 new books were acquired compared with 389 during the previous year. A considerable amount of binding of books and periodicals has also been carried out.

MUSEUM

During 1953 there were 54,517 paid admissions to the Museum, made up of 35,226 adults and 19,291 children; the total showed an increase of 3,095 over the 1952 number of 51,422. The rising interest among civilians is doubtless

due to the publicity obtained through the medium of the British Broadcasting Corporation. Free admission was given to 4,441 members of the Services and to 2,639 guests of members, school parties, cadets and scouts, and foreign officers attached to H.M. Forces. In addition, there was a large unrecorded number of members' guests passing through the private entrance.

The beauty of the Rubens Ceiling has been enhanced by the installation of a special system of illumination consisting of a proportionate mixture of tungsten and fluorescent lights. This has also resulted in a reduction of electricity consumed.

The Museum was the subject of a B.B.C. broadcast in the Children's Hour on 13th February. There was an immediate response from schools for free or reduced admission rates for organized parties, and the resulting publicity brought an increase in paying visitors, both adult and children.

On 30th May the Institution and Banqueting Hall formed part of a television programme presenting "Royal London." The live portion of this was transmitted from Lime Grove Studios where the Secretary and Attendant Coulson appeared with Mr. Richard Dimbleby.

Captain C. C. P. Lawson, a member of the Museum Committee, addressed the Company of Military Collectors and Historians at their Annual Congress in Philadelphia during January. His subject was the British uniforms worn during the American wars, and its reception is best shown by an extract from a letter to the Secretary from the Company which reads: "You might like to know what a fine ambassador he has made during his all too short stay." In the advertisements, the name of the Institution was associated with that of Captain Lawson, to whom we are indebted for this excellent publicity in the United States of America.

The Institution is indebted to generous donors for many interesting and valuable gifts to the Museum during the past year. Details of these have been published in the Secretary's Notes in the JOURNAL.

Assistance to Regimental and other Museums was continued by transferring surplus exhibits and by passing on offers of gifts that could not be accepted through lack of space.

Several exhibits from the Museum were lent to L'Union Belgo-Britannique for the special Exhibition in Brussels, which opened in February to commemorate Queen Victoria and King Leopold I. Our assistance exceeded that given by some of the large national museums, and the appreciation of L'Union Belgo-Britannique was shown by the inclusion of the Secretary in the nine British members of the Commission Artistique et Historique.

It is with regret that the loss by theft of a small model of H.M.S. *Galatea* on 20th October has to be reported. It was on loan from Mr. Norman Ough, the eminent model-maker, who accepted the incident in the friendliest spirit. The model was, of course, insured, and although the police have made the closest investigation it is feared that such an identifiable piece will remain in the keeping of the thief.

A number of members of sister Institutions in Australia visited the Institution and Museum during the year, and a special welcome was given to Colonel R. W. Savage, O.B.E., E.D., Honorary Secretary of the United Service Institution of New South Wales, from whom our Staff received Christmas parcels during the years of rationing.

ONE HUNDRED-AND-TWENTY-THIRD ANNIVERSARY MEETING

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TO THE MEMBERS OF THE ROYAL UNITED SERVICE INSTITUTION.

We have audited the above Balance Sheet dated 31st December, 1953, and have obtained all the information and explanations we have required. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the Institution's affairs according to the best of our information and the explanations given to us and as shown by the books of the Institution.

ALDENHAM'S HOUSE, BROMFORDGATE, LONDON, E.C.2.

BARTON, MAYHEW & CO.,
Chartered Accountants.
21st January, 1954.

BARTON, MAYHEW & CO.,
Chartered Accountants,
Auditors.

CR.

REVENUE ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1953

DR.

1952	£	s.	d.	1952	£	s.	d.	£	s.	d.
9,500 To Salaries and Allowances, Wages and National Insurance	9,500	7	0	5,899 By Members' Annual Subscriptions received	...	...	...	5,824	14	6
54 " Attendants' Clothing	...	...	...	" Income Tax recovered on Subscriptions under Deed of Covenant—	...	...	...	...	...	...
158 " Museum Repairs and Sundries	...	...	...	Annual Members	...	...	...	1,678	9	10
4,440 " Journal Printing	...	...	...	Life Members (one third)	...	...	...	631	8	4
370 " Journal Postage	...	...	...	Voluntary extra Subscriptions	...	...	...	2	11	0
370 " Library Stock	...	...	...	Life Subscriptions—	...	...	...	...	...	...
84 " Short-hand Notes	...	...	...	Amount brought to credit	...	...	...	2,068	8	0
327 " Library Purchases	...	...	...	3,830 " Admissions to Museum	...	...	...	4,012	2	6
40 " Periodicals and Newspapers	...	...	...	138 " Sales of Catalogues and Pamphlets	...	...	...	139	15	5
8 " Advertising	...	...	...	2,901 " Sales of Journal	...	...	...	2,173	17	11
8 " Lecture Expenses	...	...	...	558 " Advertisements in Journal	...	...	...	565	17	1
590 " Ground Rent	...	...	...	130 " Miscellaneous Receipts	...	...	...	2,739	15	0
100 " Water Rate	...	...	...	611 " Dividends and Interest Received (Gross)	...	...	...	561	7	1
171 " Insurance	...	...	...	975 " Government Grants	...	...	...	334	12	2
243 " Fuel and Heating	...	...	...	353 " Refund by the Ministry of Works—Redecorating the Banqueting Hall	...	...	...	975	0	0
484 " Lighting	...	...	...				
169 " General Repairs and Maintenance	...	...	...				
308 " House Expenses and Sundries	...	...	...				
69 " Audit Fee	...	...	...				
34 " Architect's Fee	...	...	...				
53 " Legal Expenses	...	...	...				
167 " Postages, Telegrams, etc.	...	...	...				
453 " Printing, Stationery and Binding of Books	...	...	...				
76 " Telephone	...	...	...				
2 " Travelling Expenses	...	...	...				
97 " Contributions to Staff Pension Scheme	...	...	...				
66 " Leasehold Redemption Fund	...	...	...				
— " R.U.I. Gold Medal for Essay	...	...	...				
780 " Transfer to Maintenance Reserve	...	...	...				
800 " Transfer to Discretionary Fund	...	...	...				
104 " Balance, being surplus for the year, carried to Accumulated Fund	...	...	...				
£19,866								£19,866		
								£19,966	0	10

31ST DECEMBER, 1953

We have audited the above Statement of the Chesney Memorial Medal Fund for the year ended 31st December, 1953, and certify the same to be correct.

ALDERMAN'S HOUSE,
BISHOPSGATE, LONDON, E.C.2.
21st January, 1954.

BARTON, MAYHEW & CO.,
Auditors.
Chartered Accountants.

TRENCH GASCOIGNE PRIZE FUND

31ST DECEMBER, 1953

We have audited the above Statement of the French Gasoline Prize Fund for the year ended 31st December, 1953, and certify the same to be correct.

A. DEBIAUX, 11, RUE DE LA PAIX, PARIS, FRANCE.
BENEFICIARY, BARTON, MAYHEW & CO.,
Chartered Accountants,
Auditors,
21st January, 1954.

BRACKENBURY MEMORIAL FUND
31st DECEMBER, 1953

BALANCE OF FUND at 31st December, 1952 :-	£	s.	d.	£	s.	d.
Balance at Bankers	...	...	...	23	14	7
Investment at Market Price	...	...	...	328	8	5
				<hr/>		
				352	3	0
DIVIDENDS RECEIVED, GROSS	...	...	...	14	14	8
APPRECIATION OF INVESTMENT since 31st December, 1952	...	...	...	28	8	3
				<hr/>		
				390	5	11
				<hr/>		
				£395	5	11

We have audited the above Statement of the Breckenbury Memorial Fund for the year ended 31st December, 1953, and certify the same to be correct.

BARTON, MAYHEW & CO.,
Chartered Accountants,
Auditors.

ALDERMAN'S HOUSE,
BROMFORD, LONDON, E.C.2.
21st January, 1954.

BEARDLEY-WILMOT MEDAL FUND
31ST DECEMBER, 1953

BALANCE OF FUND at 31st December, 1952	£	s.	d.	£	s.	d.
Balance at Bankers	25	13	3	...	...	...
Investment at Market Price	120	8	0	...	...	...
DIVIDENDS RECEIVED, GROSS	143	1	3	...	...	...
APPROPRIATION OF INVESTMENT since 31st December, 1952	4	4	0	...	...	...
	7	14	0	...	...	...
	£157	19	3	...	...	...
PRIZE ESSAY	...	...	...	...	...	...
BALANCE OF FUND at 31st December, 1953	...	...	...	...	...	...
Balance at Bankers	...	...	...	...	...	...
Investment at Market Price	...	...	...	...	...	...
£140 3% Savings Bonds 1950-70	...	...	...	...	...	...
	134	6	9	...	...	...
	£157	19	3	...	...	...

We have audited the above Statement of the Earle-Wilnot Medal Fund for the year ended 31st December, 1953, and certify the same to be correct.
 EARTON, MAYHEW & CO.,
 Chartered Accountants,
 Auditors.
 21st January, 1954.
 ALDEMAN, HENRI & CO.,
 Bureaucrats, LONDON, E.C.2.

CHAIRMAN'S ADDRESS

THE CHAIRMAN: Before putting the first resolution, which stands in my name, to the meeting, I should like to allude very briefly to the principal events of the year.

In the Address from this Chair last year you were told that a proposal regarding the permanent use of the Banqueting House for Government entertainment was to be laid before Parliament by a Private Member. The question finally came before the House on 19th June, and I am happy to record an answer that was most satisfactory to us. When the renewal of the Crown Lease of the Institution comes to be discussed towards 1972, the opinions expressed during the debate last June will very strongly fortify our application. We are indebted to Mr. Hugh Molson, who was Parliamentary Secretary to the Minister of Works at the time, for so ably replying on our behalf, and I think that we also owe something to Sir Edward Keeling for raising the question—it was done in the friendliest spirit—and so providing a Parliamentary record of a ministerial opinion.

Then, of course, the great event of the year was the Coronation. The arrangements made for members and their guests to view the Coronation by television and to watch the Procession down Whitehall met with their unqualified approval. Our object was to provide the best means at the lowest cost to members. In fact, *The Daily Telegraph* had this to say about it: "What may well be the cheapest accommodation for watching the Coronation procession is being arranged at the Royal United Service Institution." In actual figures the cost of erecting the scaffolding and stands by our own staff was less than one-tenth of a contractor's estimate. I think you will agree that we achieved our object. A great deal of work, both administrative and practical, had to be done before Coronation Day and it was all completed without addition to the usual staff of the Institution. Many members were good enough to write and express their appreciation of the arrangements.

I am sure that you would like me on your behalf to thank the lecturers who so kindly contributed to the lecture programme during the year. All of them are experts in their particular field and all are exceptionally busy men. Their acceptance of the invitation to lecture shows the regard they have for the Institution and the JOURNAL. Reproduction of lectures in the JOURNAL is the main thing we have to give to our very many members abroad and I am confident that we have again served them well.

In introducing the Annual Report for 1953, which you have before you, I should like to take this opportunity of thanking the Chairmen and members of the various committees of the Institution for so generously giving a further year of their services to the welfare and efficiency of the Institution. If I may say so, my personal thanks are also due to the Members of the Council for their ready help during the year I have had as Chairman. Although I did not intend to mention individuals, in addition to the great help given by the whole staff I should like particularly to mention the joy and relief it has been to know that our Secretary was always fully prepared and ready to give me every help on all occasions.

I shall now ask the Chairman of the Finance Committee, Brigadier John Longmore, to comment, if he wishes, on the Finance section of the Report and to invite any questions from the meeting.

BRIGADIER J. A. LONGMORE: I simply want to say that we have in hand £180 as against £104 last year. It is a successful year's work, and if there are any questions which anybody would like to ask perhaps they will kindly put them. (*No questions were asked.*)

THE CHAIRMAN : As there are no questions on the Finance section of the Report I now turn to the next section and invite comments, if any, concerning the JOURNAL and the Library. (*No questions were asked.*)

The final section concerns the Museum. Marshal of the Royal Air Force, Sir Edward Ellington, is unable to be present this afternoon, but the Secretary is prepared to answer any questions. (*No questions were asked.*)

Since there are no questions I beg to move :

"That the Report and Accounts, as circulated, be taken as read and adopted."

BRIGADIER J. A. LONGMORE : I beg to second.

The Resolution was then put to the Meeting and carried.

COMMODORE R. HARRISON : I have much pleasure in proposing :

"That Messrs. Barton, Mayhew & Company, be re-elected Auditors for the ensuing year."

It is of interest to note that they were first appointed auditors in 1928, so that we have had twenty-five consecutive years of their excellent work, and during the time that I have had the honour to serve on the Finance Committee they have been of the greatest assistance to us.

BRIGADIER J. A. LONGMORE : I have much pleasure in seconding that.

The Resolution was then put to the Meeting and carried.

VACANCIES ON THE COUNCIL

THE CHAIRMAN : As you will see from the Agenda there are two vacancies on the Council, and the undermentioned officers have been nominated as candidates for these vacancies. From the Royal Navy (one vacancy) there is Admiral Sir Henry Moore, G.C.B., C.V.O., D.S.O., and in his case it would be a re-election. May I ask your approval of the re-election of Admiral Sir Henry Moore.

The candidate was re-elected.

The Regular Army (one vacancy), Major-General G. W. Lathbury, C.B., D.S.O., M.B.E., has been nominated for election. May I ask for your approval of his election.

The candidate was elected.

THE TRENCH GASCOIGNE PRIZE ESSAY COMPETITION, 1953.

THE CHAIRMAN : I will now ask the Secretary to report the results of the Trench Gascoigne Prize Essay Competition, 1953.

The Secretary reported that on the unanimous recommendation of the Referees, the Council had awarded the Gold Medal of the Institution and the First Trench Gascoigne Prize of thirty guineas to Wing Commander J. E. T. Haile, R.A.F.

The Chairman presented the Prize to Wing Commander J. E. T. Haile.

The Secretary also reported that the Council had decided to award a second prize of twenty guineas, and on the recommendation of the Referees the Council had awarded this to Squadron Leader J. P. Eskdale, R.A.F.

The Chairman presented the Second Prize to Squadron Leader J. P. Eskdale.

ADMIRAL OF THE FLEET SIR ARTHUR J. POWER : At this, the 123rd milestone in the history of the Royal United Service Institution, our Chairman, Air Chief Marshal Sir James Robb, vacates his office. As you all know he has had a busy year of office, the outstanding event of which was the Coronation, and the arrangements made in this building for that day were an outstanding achievement.

Apart from that, the Air Chief Marshal has conducted all the business of this Institution with dignity and grace, and we hope that in years to come we shall have the great advantage of his counsel and advice in guiding the Royal United Service Institution to further prosperity.

It is my privilege to propose very sincerely :

" That the thanks of the Meeting be accorded to the retiring Chairman."

COMMODORE R. HARRISON : I feel very honoured at being asked to second this motion, and I should like to take the opportunity of pointing out to the members of the Institution the very great benefit we receive from the work so ably done by the senior officers of all Services. We benefit enormously, and I think that anyone coming round here will realize what a good show it is.

I have much pleasure in seconding the vote of thanks to the Chairman.

The vote of thanks was carried by acclamation.

THE CHAIRMAN : I thank you very much indeed. The year has been made possible, pleasant, and most interesting by the co-operation of all the other Members of the Council. Thank you very much.

The meeting then terminated.

THE OFFICERS' PENSIONS SOCIETY

President : GENERAL THE LORD JEFFREYS, K.C.B., K.C.V.O., C.M.G.

Chairman : CAPTAIN SIR HENRY DIGBY-BESTE, C.I.E., O.B.E., R.I.N.

Vice-Chairmen :

MAJOR-GENERAL C. H. H. VULLIAMY, C.B., D.S.O.

VICE-ADMIRAL H. T. BAILLIE-GROHMAN, C.B., D.S.O., O.B.E.

The Society was founded in 1946, and its objects are to procure the improvement and increase of pensions, retired pay, and other benefits of officers of the three Armed Services, and of their widows and dependants; and to promote in every way their interest and welfare. Also to assist and advise members of the Society in connection with pensions and retired pay, and to represent their individual problems.

It is the only body comprising officer members from all three Services whose policy is controlled solely by its members. It is not in competition with the Association of Retired Naval Officers, the Officers' Association or other Service associations, but is complementary to them, and works in co-operation with them.

The recent campaign in Parliament and the Press on behalf of Retired Officers, resulting in increases of retired pay, was to a great extent due to the activities of the Society.

Membership is open to retired officers, to dependants of serving or retired officers, and to widows and dependants of deceased officers of the Armed Forces. Membership now exceeds 7,800, which number is increasing every day.

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